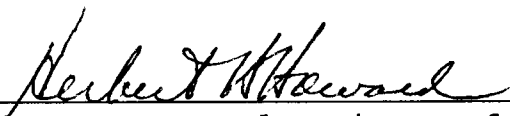
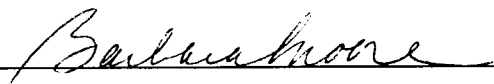
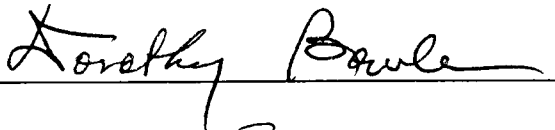
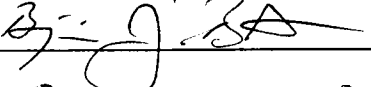
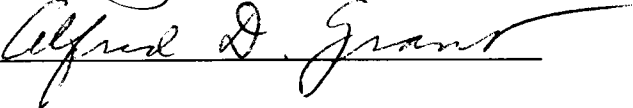


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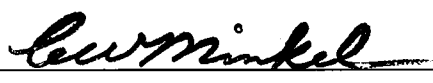
I am submitting herewith a dissertation written by Dwight John Brady entitled "Enhancing the Credibility of Media Institutions: An Experimental Analysis Involving Local Television News Organizations and the World Wide Web." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Communications.


Herbert H. Howard, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:


Associate Vice Chancellor and
Dean of The Graduate School

ENHANCING THE CREDIBILITY OF MEDIA INSTITUTIONS: AN
EXPERIMENTAL ANALYSIS INVOLVING LOCAL TELEVISION NEWS
ORGANIZATIONS AND THE WORLD WIDE WEB

A Dissertation
Presented for the
Doctor of Philosophy
Degree
The University of Tennessee, Knoxville

Dwight John Brady
December 1997

DEDICATION

This dissertation is dedicated to my parents

Hugh and Audrey Brady

Thanks for your unconditional love and support.
I am proud you had the courage to pursue your dreams,
and I am grateful for the support you have given
to help me pursue mine.

ACKNOWLEDGEMENTS

My experience in pursuing this degree has been frightfully challenging and yet extremely rewarding. I would like to thank all of the faculty and fellow grad students I had the pleasure of working with at the University of Tennessee. I would especially like to thank Dr. Herbert Howard and Dr. Ben Bates for their patience, support, and good advice.

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ABSTRACT

A laboratory experiment was conducted to examine a new way local television news organizations could possibly enhance their credibility as a news source. It was hypothesized that local television news organizations identified as providing issue information on local congressional races on a web site would be rated as having greater community involvement and utility of information and ultimately greater levels of overall credibility. Data collected before and after a twenty-minute exposure to an experimental web site identifying local television news sources as the sponsor did not indicate any increase in perceived levels of community involvement, utility of information, or overall credibility.

This study also looked at whether political issue information on the World Wide Web would be perceived differently when viewed on a site identified as being sponsored by a local television news source versus a site identified as being sponsored by an unfamiliar political interest group. While the results did not indicate a strong source effect, subjects tended to rate information

from the television news sources as more accurate than the same information from the political interest group.

This study also found that a twenty minute exposure to the issue information on the experimental web site led to statistically significant increases in voting confidence, likelihood of voting in the primary election, and recall of candidate names.

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Chapter 1

Introduction

Recent surveys have shown a noticeable downturn in perceived public confidence in both television news organizations and their reporters (Gallup, 1995). A small rebound in 1996, however, offered hope that this period of decline may be over (Gallup, 1996).

Such surveys are useful for indicating variations in public confidence, but they do not tell us why these variations are occurring. Greenberg and Miller (1966) suggested that research on media credibility should focus on understanding variables that enhance or diminish source credibility. The study of credibility is relevant to the preceding discussion of public confidence because confidence and credibility have both been defined as a form of trust (Morehead & Morehead 1981).

The primary purpose of this study is to examine a new factor that may provide a means for local television stations to enhance their credibility as sources of information. The study will test whether TV news organizations may benefit from utilizing the World Wide Web as a means of extending vital information to their

viewers beyond their regular news programming. The secondary purpose of this study is to determine whether there is a source effect upon credibility of information (Hovland & Weiss, 1951) when accessing information in a web environment.

Typically, on-air talent or news anchors, news sets, and technical reliability have been found to contribute significantly to the image or credibility of local television news organizations (Schihl, 1982). Schihl also found, however, that the perceived value of the information contributed to a newscast's credibility as well. McCroskey and Jenson (1975) also found value to be related to credibility of news sources.

Another element of credibility that will be looked at in this study is the perceived community involvement of the news source. Community involvement by individuals has long been associated with use of local media (Bogart & Orenstein, 1965; Olien, Donohue, and Tichenor, 1978). More recently, the community involvement of media institutions has been identified as a component of media credibility (Gaziano and McGrath, 1987; and Meyer, 1988). Therefore, this study will give special attention to the relationships between credibility and the concepts of community involvement and news value.

Local television newscasts, for the most part, are packaged to fit a finite time frame, generally thirty minutes. After accounting for commercials, weather, and sports, about twelve to fifteen minutes are actually available for news. Critics of television news argue that important information is often left out for the sake of time, especially in the area of political discourse (Patterson, 1980; Davis & J.P. Robinson, 1986, 1989).

With the rapid growth of the World Wide Web, many opportunities exist for television stations to provide additional news coverage and public service beyond the typical newscast. Television news organizations now have the capability to expand their service as an information provider to the community. This expansion could be achieved in part by providing additional information on public affairs issues or ongoing events such as local political races. Such information may have a positive effect on the perceived value of information and community involvement of the news source, which in turn may affect overall credibility.

In the past, newspapers have enjoyed a higher degree of preference as a source for public affairs information than broadcast media (Clarke & Ruggels, 1970). This preference may be due to the apparent superiority of print over broadcast media in diffusing public affairs

information (Wade & Schramm, 1969). Newspapers are not limited by time constraints and therefore can publish more information than television news sources.

The central purpose of this study then is to determine whether provision of such expanded information through the World Wide Web can enhance a station's image or credibility as an information source.

To study this relationship, a laboratory experiment was conducted in which subjects were pretested, randomly assigned to one of three treatment groups, exposed to an experimental web site stimulus, and then posttested. The pretest and posttest were designed to measure the perceived credibility of local media institutions. The stimulus included a twenty-minute exposure to one of three simulated web sites. Two sites were designed to appear as being sponsored by two of the three local television news organizations in Knoxville, Tennessee. A third site was created to appear as if its information was provided by a non-partisan political interest group. The information contained on each site was identical except for the identification of the source. Data for this study were collected just prior to the Tennessee State Primary in August of 1996. This primary was of particular interest because the resignation of a long-time U.S. representative in one of the local districts had created a very

competitive race among fifteen candidates. More details on the methodology and experimental web site will be covered later.

The type of information chosen for this study included issue profiles on candidates running for Congress in the four congressional districts within the viewing areas of the two stations. Political information was chosen as the content for the experimental stimulus for three primary reasons. First of all, candidate issue profiles represent the type of information a news organization could provide as a service to the public. While it may not be feasible to repeat this information on a nightly newscast, this relatively non-dated information may be accessed at the leisure of the public over an extended period of time. Secondly, this type of information addresses criticism of television news as being too light on issue information in political campaigns (Patterson, 1980; Davis & J.P. Robinson, 1986, 1989). A third reason for choosing political information as the content for the experiment is the rapid growth in political communication on the World Wide Web (Maney, 1996). With this growth, the Web seems to be gaining more influence as a vehicle for public discourse (Seib, 1995), and research is needed to better understand this new phenomenon.

To help illustrate the potential demand for this type of service, a Los Angeles Times poll of citizens in California indicated that issue information is a key ingredient in motivating people to vote. When asked what would encourage them to vote, the respondent's number one answer was, "if the issues were less confusing." This answer was given by 35% of the respondents. Thirteen percent said higher quality candidates would encourage them to vote, while only 9% said they would be encouraged to vote if the process was made easier (L.A. Times Poll, 1990).

Definition of Terms

Credibility is defined by Webster as, "being worthy of belief; believable." A "credibility gap" is defined as a, "lack of confidence or trust between two entities" (Morehead & Morehead, 1981). While the concept of trust is certainly important, a number of other concepts such as expertise, dynamism, and accuracy have been found to describe credibility (Hovland and Weiss, 1951; Westley & Severin, 1964 and Markham, 1968;). Credibility then, seems to encompass a somewhat broader meaning than simply the level of trust ascribed to a media institution.

The term image, however, has been used interchangeably with credibility (Sargent, 1965).

Anderson and Clevenger (1963) used image to define ethos, while Markham (1968) considered the term ethos and source credibility to be the same phenomenon in his study of television newscasters. Turning to Webster once again, image is defined as, "a picture in the mind," or "a mental picture (Morehead & Morehead, 1981)." Given this description, it does seem logical to associate image with credibility. This image would represent a composite of previous interactions and assessments of a particular media institution. From this image, assessments about the credibility of the institution are made. Therefore, if this image is the basis for a conclusion about the overall credibility, it is in a sense, synonymous with credibility.

Institutional media credibility is a concept that represents the overall credibility of a media institution. The overall credibility of a media institution is assumed to be derived from several component parts. As mentioned earlier, the overall credibility of a local television station may be comprised of the credibility of the on-air talent, the technical quality of the signal, and the appearance of the news set (Markham, 1968; McCain & Childberg, 1977; and Schihl, 1982;). Other components such as value of information and community involvement have also have been found to contribute to overall

credibility (McCroskey & Jenson, 1975; Gaziano & McGrath, 1986).

As one would expect, the level of perceived community involvement is the degree to which a station is perceived as being involved with events or issues directly affecting the local community. Perceived community involvement has been found to contribute to media credibility (Gaziano & McGrath, 1987 and Ryu, 1995;).

Utility of information is a term that represents the value of the information to the media consumer. Schihl, (1982) and McCroskey & Jenson, (1975) found news value to contribute to the overall credibility of local media institutions. In this study, value of information will be referred to as utility of information. While similar in meaning to value, utility places more of a premium on information that is useful in some way rather than simply interesting.

This study proposes that providing issue profiles of local political candidates may be one way a routine news source can improve both perceptions of community involvement and utility of information. Enhancing the perceived community involvement and utility of information may, in turn, affect overall credibility.

Other elements, such as the perceived accuracy and fairness of the information provided also affect the

overall level of credibility. Such perceptions, however, have often been found to be situational, depending on the person's own level of bias (Gunther, 1987). Nevertheless, repeated factual errors and or ethical conflicts related to a television news source would likely detract from the overall credibility of the source.

A routine news source has been defined as a source of news and information that people use on a regular basis such as television networks, local television stations, and the local newspaper(s) (Robinson & Kohut, 1988). This same definition will be used in this study. Routine news organizations are typically thought of as informing viewers on the events of the day. Such events might range from the capture of a serial killer to something as routine as the signing of a new bill in Congress. News organizations that focus only on the spectacular or on highly specific subject matter do not fall within this definition of a routine news source.

The World Wide Web is part of a global computer network known as the Internet. The "Web" allows users to view graphics, text, and video and hear audio on their personal computers. This information is accessed by telecommunication links between a personal computer to another (host) computer containing a web site. Web sites are electronic documents that are comprised of text,

graphics, and in some cases audio-visual media. Once at the site, the user is generally greeted by a "homepage" offering a brief introduction to the contents of the site. From the homepage, the user can connect to other pages within the document or even link to another site. In this particular study, extended web information consisted of issue positions of local congressional candidates. Extended information could, of course, come in other forms. Such information might include details on a local bond issue that were not fully explained in a previous newscast. By using the web in this way, local television news organizations would be able to extend the depth of their coverage beyond the limits of a television newscast.

Statement of Problem

The preceding introduction has touched upon several problems associated with media credibility. Polling information regarding the level of is useful for keeping the credibility score, but such polls do not indicate why changes in credibility occur. From this brief introduction, it appears there is a need for more issue-based campaign information on television (Patterson, 1980 and L.A. Times Poll, 1990;). At the same time, most television news sources only have a finite amount of time

to devote to issue-based information. It is now possible, however, for a television news source to provide this information to the public without taking away from any airtime.

To address the preceding problem, this study looked at one variable that might enhance the credibility of local television news organizations. This variable is extended information on the World Wide Web. In this study, the extended information was presented in the form of issue positions of local congressional candidates. This form of extended information was chosen because there seems to be a demand for issue-oriented coverage of political campaigns in America (Fibich, 1995). However, some researchers have pointed out that there is a lack of in-depth coverage (Patterson & McClure, 1976; Davis & Robinson, 1989). This study will attempt to determine whether the perception of community involvement, utility of information, and overall credibility of local television news organizations can benefit from providing extended political issue information on the Web as a public service. Community involvement has been found to be an important part of a local station's overall credibility (Gaziano & McGrath, 1986). Value or utility of information has also been found to contribute to credibility (McCroskey & Jenson, 1975; and Schihl, 1982).

A new model of credibility to be introduced in this study postulates that community involvement and usefulness of information are important elements in contributing to the overall credibility of a local television news organization.

The extended information was provided on three simulated web sites. While the information remained identical for all three pages, one site appeared to be created by one local television station the and second site was designed as if to represent another local station. The third site appeared as being sponsored by a political interest group. By pretesting subjects for their attitudes about the stations before being exposed to the web page stimulus, it was hoped that any changes brought about by exposure to the simulated web page would be measurable.

It is important to point out that the information provided on the experimental web sites was real information collected from real congressional candidates in the Tennessee State Primary. The experimental web sites contained biographical information and issue positions of the candidates. The candidate information was limited, however, to only those candidates running in districts one through four in Tennessee. There were two reasons this limitation was placed upon the information:

1) these districts were part of the main viewing area of the stations included in the study; and 2) it was anticipated that most subjects participating in this study would be from one of the four local districts.

Because two local television stations with differing levels of initial credibility were represented in this study, it was possible to test whether the provision of supplemental information on the Web has a stronger impact on the credibility of one station or the other. For instance, it is possible a station with initially high ratings of credibility may not benefit as much from the provision of extended information as a station initially perceived to be lower in credibility.

In addition to studying how the extended information on the web site might affect the perception of the source, this study also sought to determine whether the source had any impact on the perceived credibility of the information. In other words, was information perceived as more accurate and helpful when presented by a routine news source perceived to be higher in credibility than one perceived to be lower in credibility? Or, was information from routine news sources (like local TV stations) viewed as more credible than identical information from an unfamiliar source? Based on a study by Robinson and Kohut (1988), routine news sources have greater credibility than

sources that are used less frequently, or for specialized purposes. It is likely this will hold true in the realm of cyberspace as well, but it is an assumption that needs verification.

With thousands of sites now available on the WWW, Morris and Ogan (1996, p. 44) view credibility as an important issue. According to Morris and Ogan, source credibility will vary on the Internet. Commercial media sites will be viewed as having relatively more credibility and unknown sources perceived as having less. A similar hypothesis was tested in this study. This was done to determine if the current understanding of media credibility is transferable to the new medium of the World Wide Web.

This study also looked at whether exposure to issue information on the web significantly increased subjects confidence in making an informed decision, likelihood of participation in the electoral process, and their ability to identify political candidates. Usefulness of candidate issue information from a web site, the likelihood of using the site again, and compared aspects of obtaining date issue information from a web site versus traditional media were also addressed.

Importance of Study

This study is important for two main reasons. First of all, traditional news media are exploring other vehicles for providing information through the web. At the time of this writing, local TV stations were putting out homepages, but most of them were used for promotion and some news highlights (Bates & King, 1996). It is important for communication researchers to provide media managers some guidance as to what types of information work well on the web and what types do not. Through this study, it is hoped new insights will be gained on the relationship between credibility and extended information regarding local political races on the Web. The response to political information provided on the Web by national media and other organizations indicates a demand for information that offers the user a concise yet informative profile of political candidates and their positions on the issues. The degree to which provision of this information on a web site can influence certain perceptions about the source is a topic worthy of investigation.

Limitations and Delimitations

It is important to point out that the primary purpose of this experiment was not necessarily to study new

technology but to assess the impact of the extended information made available through this technology.

The sample for this study was limited to only 169 students enrolled at one university. The relatively small sample size and differences from the general population in age and education certainly limit the external validity of any results. This limitation was considered to be acceptable because the focus of this study was to isolate the effects of manipulating the identification of the sources. The pretest and posttest design allowed for matched comparisons before and after exposure. The experimental design also allowed controls to be placed on the content and for three different exposure groups to be tested.

The time frame for administering the experimental web site stimulus was limited to a two-week period leading up to several days before the Tennessee State Primary on August 1, 1996. By limiting the exposure to period right before the primary, it was hoped the information would seem more relevant to subjects participating in the study.

The information provided on the experimental pages was limited only to major party congressional candidates representing the four Tennessee districts in the viewing areas of the stations involved in the study. Information was limited only to congressional candidates primarily due

to time constraints in preparing the experimental web site. Inclusion of information on all relevant state representative races along with county and municipal races would have been ideal, but gathering and presenting this much information was beyond the resources available for this study. Congressional candidates offered a compromise between being relatively local in scope while representing enough people to be relevant to most of the subjects participating in the study.

Overview of the Study

Following this introductory chapter, five distinct chapters are presented: Background/History of subject; Review of Literature; Methods; Results; and Discussion. The first part of the background section attempts to demonstrate that a need exists for stations to provide supplemental information on the Web. The second part of the background and history chapter offers a brief overview regarding the development of the World Wide Web. The literature review focuses on the development of source credibility and media credibility research. This review culminates with the introduction of a model that attempts to tie together various strands of research relating to media credibility. This model outlines the process of audience interaction with a local television news

organization and how this interaction relates to the credibility of the institution. Chapter four discusses the methodology used in collecting and analyzing the data in this study. The results of the study are presented in chapter five followed by a discussion of the results and their implications in chapter six.

Chapter 2

Background

According to Gallup, the percentage of Americans putting "quite a lot" or "a great deal" of confidence in television news dropped sharply from 46% in 1993 to just 35% in 1994 and slipped to 33% in 1995 (Gallup, 1995). These figures did improve, however, to 36% in 1996 (Gallup, 1996). During this time, confidence in the military and many other institutions stayed about the same. Gallup's ranking of public confidence in more than twenty different professions in the U.S. showed television reporters slipped from ninth in 1992 and 1993, twelfth in 1994, fourteenth in 1995, and twelfth in 1996. These figures, however, do not distinguish between local and national television media and do not offer reasons as to why changes in perceived confidence occur. The numbers simply indicate there was a fairly sharp decline that appears to have leveled off.

The primary goal of this study was to examine one factor that may improve the credibility or image of local television news organizations as sources of information. The factor being studied was extended information on the

World Wide Web. Extended information, as defined earlier, is that which extends or embellishes the information covered briefly on local newscasts. By extending the information normally provided on the traditional newscast, it is possible the perceived value of the information may be affected. Also, if the extended information relates to the local community, the perceived commitment of the station to the community may be enhanced as well.

The type of extended information utilized in this study was issue positions of local congressional candidates in the 1996 Tennessee State Primary. This type of information was selected as the stimulus for the study because candidate issue profiles represent the type of public affairs information a television news organization could provide over the Web. There is also evidence that the public would like to see more attention given to issue coverage in the news media (Fibich, 1995).

Traditional Media and the Voting Public

Of all the privileges that come with being an American citizen, few are more neglected than the right to vote. Typically, voter participation in the last two decades has run just a bit more than 50% of the voting age population in presidential elections.¹ Participation

¹ www.fec.gov/pages/htmlto5.htm (accessed June, 1997)

among voting age Americans did, however, increase dramatically in the 1992 election to 56% (the highest level since 1968).² This increase, however, can be partially attributed to the presence of a legitimate third party candidate in Ross Perot, who received 18% of the popular vote.³ A strong third party presence was also the case in 1968 when George Wallace garnered 11% of the popular vote.⁴ In any case, it is safe to say that roughly half of all eligible voters in the U.S. do not participate in the electoral process.

Data maintained by the National Election Studies shows interest in public affairs has decreased somewhat since the mid-70s, but the majority of Americans still seem to have an interest in public affairs. Seventy-two percent of those surveyed in 1964 said they had at least some interest in public affairs, compared to sixty-three percent in 1994.⁵

Despite this trend, a focus group study conducted in 1990 by the Kettering Foundation (Fibich, 1995) revealed that the public is not necessarily apathetic about public affairs. Respondents in the Kettering study reported an interest in public affairs, but they also felt removed

² www.umich.edu/~nes/nesguide/toptables/tab9a_2.htm (accessed June, 1997)

³ *ibid.*

⁴ *ibid.*

⁵ *ibid.*

from the political process by powerful lobbyists, the politicians themselves, and the media (Fibich, 1995). On the subject of the media, participants complained that oversimplified sound bite coverage did not offer enough substance. The participants also felt the media overlay controversy between campaigners and place too much emphasis on their personal lives.

Perceived lack of substantive issue coverage by the commercial media has been the topic of numerous political communication studies over the years (Patterson & McClure, 1976; Patterson, 1980; Hershey, 1989). These studies have shown that media, especially television, devote very little election coverage to issue positions of candidates. The reason for this is what Patterson calls the game-centered approach of the news media (Patterson, 1990). According to Patterson, this approach has led to a trend that reduces the importance of what the candidates are saying and focuses on the race itself. This assertion is supported by a number of content analyses. Addato (1990) revealed that the average sound bite of presidential candidates on network television dropped from 42.3 seconds in 1968 to 9.8 seconds in 1988. This finding was supported by Hallin (1992) who noted sound bites of 43.1 seconds in 1968 and only 8.9 in 1988. Johnson (1993) found that 59% of preprimary and primary election stories

by three television networks and two large daily papers focused on "horse-race" coverage. Buchanan's analysis of broadcast and print media in 1988 found that 36% of campaign stories focused on the horse race, 21% on candidate conflicts, and less than 10% on policy issues (Buchanan, 1991).

Despite the apparent shortcomings of current television coverage of issues, one 1992 national post-election survey found that 82% of the voters received most of their news about the presidential election from television (Time Mirror, 1992). This is supported by a study that showed attention to television to be one of three variables contributing to a person's intention to vote (Kenammer, 1987). The other variables were age and interest. This study did not, however, delineate between television viewing and television news viewing. It is possible that viewing of political advertising on television may have contributed to intention to vote or intention not to vote. While television news coverage of political events enjoys widespread popularity, it does seem to have limitations in its perceived usefulness. Even when respondents said they received more news from television than from any other source, these same viewers appear to place less importance on television news than on information obtained from newspapers (Vinyard and Sigel,

1971). Choi and Becker (1987) found that a voter's confidence in making an informed decision was not related to television news viewing. They found that newspaper reading increased the voter's ability to discriminate between issue positions, thus increasing confidence in voting decisions. In discussing their findings, Choi and Becker commented that television's emphasis on visual factors and short fast-moving sound bites may be inhibitors to substantial exposure to campaign issues. Also, the audience is not given a chance to go back and hear a newscast unless, of course, they record it.

The apparent lack of issue information being communicated on television news is not just limited to presidential election coverage by national media. A study by Weaver and Drew (1993) of the 1990 U.S. Senate race in Indiana found that exposure to television news was not correlated with issue knowledge. In fact, attention to television commercials had more impact on issue knowledge than attention to local news coverage. Overall, they found public knowledge about issues was extremely poor.

While the preceding studies indicate that issue information on television news is limited, the Los Angeles Times poll cited earlier shows the public would like more issue information (L.A. Times Poll, 1990). This tension between the apparent desire for issue information and the

lack of it on television news indicates media institutions should seek ways in which to meet this need.

Some researchers have called for changes in the way television newscasts are presented (Davis & J. P. Robinson, 1986, 1989). The assumption here is if more issue information was made available in newscasts, the public would be better informed. This is certainly a logical assumption, provided the public would find it interesting enough to watch. This issue is raised because the public seems to seek out television news not only for information but for entertainment value as well (Greenberg & Roloff, 1974).

Regardless of ratings and circulation numbers, the concept of democracy demands that the media provide a number of functions and services for the political system. According to Gurevitch and Blumler (1993, p. 27), the media should provide:

1. Surveillance of the sociopolitical environment, reporting developments likely to impinge, positively or negatively on the welfare of citizens:
2. Meaningful agenda-setting, identifying the key issues of the day, including the forces that have formed and may resolve them:

3. Platforms for an intelligible and illuminating advocacy by politicians and spokespersons of other causes and interest groups:
4. Dialogue across a diverse range of views, as well as between power holders and mass publics:
5. Mechanisms for holding officials to account for how they have exercised power:
6. Incentives for citizens to learn, choose, and become involved rather than merely to follow and kibitz over the political process:
7. A principled resistance to the efforts of forces outside the media to subvert their independence, integrity, and ability to serve the audience:
8. A sense of respect of the audience member, as potentially concerned and able to make sense of his or her political environment.

What then shall be done to improve communication between television news organizations and the public? This study proposes tapping the World Wide Web as one possible way to bridge the issue information gap. According to information processing theory, the ability to attend to and discriminate among stimuli is quite limited for the average person (Miller, 1967). Atwood and Sanders (1975) suggested that a clustering of stimuli might be

necessary to help the voter make sense of a political campaign.

In the past election, a number of news organizations attempted to provide an indexed pool of political information at the national level. Newsweek, ABC News, and The Washington Post launched ElectionLine amid the Republican primaries in early 1996.⁶ Other major media entities such as CNN, CBS, NBC, and USA Today also offered election coverage on their homepages.⁷ These pages offered the user a chance to compare presidential candidates based on their voting records, documented stands on a variety of issues, and current campaign news. The networks are not alone in their efforts to promote "cyberdemocracy." Various interest groups also have pages on the web, along with the candidates themselves, political parties, and some independent citizens groups (Seib, 1995).

Such web pages by media institutions may not offer an immediate remedy to the apparent downturn in public confidence in the media. They could, however, aid in building good will between these institutions and the public they serve by providing useful information not normally available in traditional newscasts.

⁶ www.electionline.com (accessed May, 1996)

⁷ allpolitics.com (accessed June, 1996)

The World Wide Web

The WWW has become known as the "user friendly" part of the Internet. It allows the user to access a number of different sites on a worldwide computer network by simply using a computer mouse to select words or images designating the location of a particular site. In most cases, this is far easier than typing manual commands and addresses that were a part of the early and even recent Internet.

The roots of the "Web" can be traced back to 1969. In that year, the U.S. Advanced Research Projects Agency started ARPAnet (Derm, 1994). This modest computer network was primarily the domain of scientists, engineers, and academicians. This central computer was shared by users for various computing tasks, but these early users soon found they could communicate with each other as well, thus "E-mail" was born.

More computers were added to the network, but growth was still limited mostly to military labs and some academic computer-science departments. As of 1983, the Internet consisted of fewer than 500 host computers (Anderson, 1995). In the next four years however, the Internet had grown to include 28,000 host computers.

Even with such rapid growth, the Internet had not yet penetrated the consciousness of most Americans. This would all change with the coming of the World Wide Web.

The World Wide Web was started by workers in the European Particle Physics Laboratory in Geneva, Switzerland (Derm, 1994). With text and graphics it was no longer an exclusive environment for academics and scientists, The Web became a place to visit, a place we now know as "Cyberspace." Here, even computer neophytes can find an enormous amount of information, entertainment, or services relating to virtually any topic they are interested in. The ease of use and multimedia capacity of the Web led to explosive growth starting in 1994. From early 1994 to mid-1995, the number of sites on the Web grew almost 20 fold to three million multimedia pages of information, entertainment and advertising. In the same time frame, the number of new Web users also increased dramatically from a few million to an estimated twenty million in 1995 (Anderson, 1995). By January 1996 the number of Internet hosts had tripled from mid-1995 to over 9.5 million and the number of users had increased to estimates as high as 26.4 million (Miller, 1996). Projections for number of users in 1997 have ranged between thirty and forty million (Maney, 1996).

According to Rogers (1986) a new medium such as the Web will not become widely adopted until it reaches critical mass. Valente (1991) noted that critical mass is achieved when about 10 to 20 percent of the population has adopted the innovation. While figures on the number of web users vary widely, over one-third of U.S. households have at least one computer (Upbin, 1997). If the adoption of web technology follows this lead, the web will certainly achieve critical mass, if it has not already.

The exponential growth of the Web since 1994 has led to an exciting new world of information, but its growth and popularity have also created overcrowding. During peak periods, users may find it impossible to connect to a popular site. If one does get to the desired location, downloading files (especially large image files) may be slowed by traffic as well. According to the National Research Council, the major problems that could impede development of the Internet include insufficient investment in communications infrastructure and difficulties with setting standards (Anthnes, 1996).

Despite the congestion and other concerns over privacy and obscenity, the Web continues to grow. The individuals that have made the Internet grow are typically male and middle class. According to the Online Research Group's survey of 1500 randomly selected Internet users,

66% were men. Forty-three percent of Internet users have incomes from \$35,000 to \$75,000 a year, while only one percent have incomes over \$200,000 per year. Twenty-five percent of the users are 35-44 year-olds with the second largest age group of twenty percent between the ages of 18-24 (Rupley, 1995). While one would expect Internet users to be relatively young, the middle class dominance dispels the notion that the Internet is reserved only for the elite portions of society.

New Developments In Web Technology

Most of the early pages on the Web were created by using a computer language called Hypertext Mark-up Language or HTML. While HTML is fairly easy to use, it can also be very limiting to web authors who desire more from their creations. Newer authoring tools have now been introduced that allow for greater interactivity and the look resembling desktop publishing. Programs like Java, Frontier, and Microsoft's Visual Basic support a process known as "scripting." Scripting basically allows the creator of the page to write computer programs for specific uses within the web page. The implementation of tailored or stock computer programs into a web site will allow for much more interactivity than is currently available with standard authoring tools.

Eye catching text and graphics and interactivity are only the beginning of new developments being introduced on the Web. Software for the placement of audio and video into web pages is becoming more sophisticated. An example of this is Real Audio by Progressive Networks. The program allows for live real-time audio broadcasts from web sites provided that the user has a 28.8-baud modem. . Even though the sound quality is still not competitive with even AM radio, it will certainly improve. Real-time video transmissions may also become more common with the introduction of the cable modem. Intel's version of this device is reportedly many times faster than the current telephone modem at 28.8 bps (bauds per second) (Browning, 1996). According to Chris Bell, VP and creative director for Jazz Central, an online source for jazz on the Web, television will be "real in a consumer environment" by the year 2000 (Traiman, 1996). This claim is supported by Forrester Research, that predicts at least 7 million households will be using cable modems by 2000 (Traiman, 1996). With these signals being delivered to the home via computer, it is possible it will supplant television as the primary entertainment and information medium.

What ever happens in the next several years, one thing appears certain; the Web is here to stay, and current media institutions of all types would be wise to

begin developing a presence on it. Communication scholars must also respond to the challenges this new technology brings. Traditionally, researchers of mass communication have developed models based on one-way communication between a newspaper or broadcast station and a mass public. These models do not necessarily apply to the Web, but at the same time, the Web can be thought of as a mass medium.

In considering the Web as a mass medium, Morris & Ogan (1996) have identified four categories for producers and their audiences: (a) one-to-one asynchronous communication such as E-mail; (b) many-to-many asynchronous communication such as electronic bulletin boards; (c) synchronous communication such as online games, chat rooms, and CUSee-ME; and (d) asynchronous communication in which the receiver seeks out information on the Web from one or many sources. This may involve transactions of one-to-one, many-to-one, or one-to-many.

Asynchronous communication best describes the process that has become known as web browsing. It is this activity that has led to much of the growth of the web. A person desiring information on a particular topic can go to one of many indexing services known as "search engines" and enter one or more key words. Within seconds, the user will be provided with a listing of sites offering

information on the topic of choice. The user can then simply select the title of a site and link to it.

Cyberdemocracy

One topic that has received a great deal of attention on the Web is politics. To illustrate the growth of political communication on the Web, only a handful of candidates provided web pages in the 1994 election. In 1996, a number of congressional incumbents had homepages, with many state and local candidates providing information as well. Web use by politicians has continued to grow following the election. As of January 1997, eighty-six out of one hundred U.S. Senators had posted web addresses.⁸

Another interesting development is the amount of information provided by national media institutions, private organizations, and government agencies. An issue-hungry voter in 1996 could visit nonpartisan sites like CNN and Time Magazine's All Politics, or All Things Political by Washington Weekly.⁹ One of the most complete sources of information on candidates running for Congress is provided by Congressional Quarterly's American Voter

⁸ www.sierraclub.org/politics/congress.html (accessed June, 1997)

⁹ allpolitics.com (accessed July, 1996)
www.federal.com/political.html (accessed July, 1996)

'96.¹⁰ This site offers users a chance to compare their views with congressional incumbents and challengers in all fifty states. Other popular nonpartisan sites include: Countdown 96; Election '96 Home Page; ElectionLine (from ABC News, the Washington Post, and Newsweek); Politics USA (from Lexis-Nexis); and Project Vote Smart Web, a site containing a wealth of issue information, campaign finance records, and voting records of incumbents.¹¹ Even internet service providers have stepped into the political arena. America Online created Decision 96, while its competitor CompuServe, posted the Election Connection.¹²

The abundance of political web sites demonstrates the Web can be a viable medium for providing such information. It also suggests there is a desire for information that goes beyond the seven-second sound bite or thirty-second TV spot. Given the apparent interest in national politics on the Web, it is logical to assume that the public would also welcome information on a local and regional scale as well.

¹⁰ voter96.cqalert.com (accessed July, 1996)

¹¹ comeback.com/countdown (accessed May, 1996)
dodo.crown.net/~mpg/election/96.html (accessed May, 1996)
www.electionline.com (accessed March, 1996)
politicsusa.com (accessed March, 1996)
www.votesmart.org (accessed January, 1996)

¹² AOL Keyword: election (accessed June, 1996)
CompuServe go command: election (accessed June, 1996)

Previous research indicates that when political information is made available to the public, they will utilize it. Becker and Slaton (1981) found that respondents provided with a brochure on local and national issue information prior to a telephone poll were far more likely to be knowledgeable about certain issues than those respondents not provided with previous information. While this study indicates people will use issue knowledge they are provided with, it does not infer that people will seek out similar information on a web site. However, with the Web, it is now easier for people with access to the Web to locate issue information. If the public is made aware of informative web sites and they are easy to find, this is the next closest thing to actually delivering the information to a person's doorstep.

Chapter 3

Review of Literature

Because the focus of this work involves studying changes in perceived credibility, an overview of persuasion research will be presented early in this chapter. This overview will be followed by a review of literature from three main areas of credibility research: descriptive; source-to-message; and message-to-source studies. Finally, a new model of media credibility for local television news organizations will be presented near the end of this chapter. The purpose of this model will be to tie together much of the material covered in the literature review and offer a basis for the hypotheses and research questions to follow.

Persuasion Research

According to Janis et al. (1959), certain communication stimuli can influence an individual to change his beliefs, decisions, or general attitudes. Changes in the actual behavior of a person are classified as communication effects.

Much of the research in persuasion has dealt with the study of attitudes and opinions (Katz, Sarnoff, & McClintock, 1956; Weiss & Fine, 1955). Katz (1960) defines attitude as the predisposition of an individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner with opinion defined as the verbal expression of an attitude. Thus, the term attitude change is used when the recipient has internalized a valuational message. Internalizing is evidenced by discernible changes in the person's perceptions, affects, and overt actions, and verbalized judgments (Janis & Hovland, 1970).

All attitudes include perceptions or beliefs, but not all beliefs are attitudes (Katz, 1960). Specific attitudes can be organized into hierarchical structures known as value systems. The term hierarchical is important to understanding persuasion theory. This is because a person is more or less likely to be persuaded at different levels within the hierarchy. For example, it would be very difficult to change a person's entire value system but less difficult to change their attitude about a particular object related to the value system, and even less difficult to change their belief or perception of that object. Applying this theory to the mass media, it should be easier to change the perception of whether a

local television news organization is professional than to change the person's overall attitude about its credibility. The reason is that the overall credibility may be comprised not only of perceptions about professionalism but also fairness, reliability, and usefulness of information. Hence, the greater number of beliefs contained in the attitude the more difficult it is to change (Katz, 1960).

Even if one could change enough of a person's beliefs about a media institution to create a measurable effect in his or her attitude about its overall credibility, it would be still more difficult to change this person's value system. The reason for this is because an attitude about media credibility may be only one of several attitudes within a person's value system. The preceding concepts are important elements to the hypotheses of this study and to the model of institutional media credibility that will be introduced near the end of this chapter.

Credibility Research

As stated earlier, three main types of credibility studies will be discussed in this review: 1) descriptive studies; 2) source-to-message studies; and 3) message-to-source studies.

Descriptive studies fall into two basic categories: the believability studies dating back to the 1930s; and factor studies that pursued the identification of concepts to describe credibility. The early believability studies basically looked at how the public perceived different media, in terms of how believable they were (Roper, 1979). Roper's early findings were later challenged, which led to more precise ideas about how media are used and perceived.

Source-to-message effects studies are often associated with the persuasion research of Hovland and Weiss (1951). This form of research views credibility as an independent variable asserting an effect on the persuasiveness of the message.

Message-to-source effects reverse the equation by asking how different messages might affect the credibility of the source. This view also takes into consideration the unique characteristics of the receiver and how these characteristics interact with the message to possibly affect the perceived credibility of the sender.

Believability Studies

Believability and credibility appear in the literature as almost interchangeable concepts (Schihl, 1982; Ryu, 1995). This view assumes that for a source to be credible, it must certainly be believable to start

with. During this portion, these terms will be used quite often as meaning virtually the same thing.

The Roper studies of the 1960s comparing newspaper believability with television received a great deal of attention among scholars, but the believability controversy started well before television came on the scene. A 1939 Roper poll found radio to be more believable than newspapers. The poll indicated that "radio press bulletins" and "radio commentators" were more believed than "editorial" and "news items in newspaper" (Erskine, 1971). Radio's edge continued into the 1940s. When asked which source was more believable if the two media contradicted each other, polls showed people still had a slight preference for radio.

The focus shifted in 1959, when Roper started conducting polls contrasting the believability of television and newspapers. In 1961, television pulled ahead of newspapers for the first time as America's most believable source of news (Roper, 1961). This finding touched off a series of studies to investigate the Roper polls and the concepts related to believability.

Westley and Severin (1964) sought to determine the effects of demographic variables on perceived credibility of media. They found that respondents in "blue collar" households gave television a slightly higher rating than

those in "white collar" homes. They also found that education and socioeconomic status were related to high newspaper credibility. Men were found to trust the newspaper more than television while the opposite was true for women. Carter and Greenberg (1965) found that older respondents assigned greater credibility to newspapers than others. This finding was supported by Mulder (1980) who found that age alone explained 65% of the variance in media credibility. While these studies helped to show how different types of people rate the media, they were not able to explain the apparent overall superiority of television credibility over the newspaper.

In two Wisconsin communities, Fosdick (1968) found that the newspaper was preferred over television for local news. Television, however, was most preferred for non-local news and was viewed as the most accurate and truthful source of news. These findings were confirmed by Stempel (1973), who found newspapers the most frequently used sources for local news, while television was used more as a source of national and international news. Overall, however, Stempel found television to be the most believable medium. Ryan (1973) also looked at geographic variables and credibility. He found that newspapers were perceived as more believable on a state and local level.

These early studies were often flawed, however, due to the failure to distinguish between characteristics within a given medium. For instance, the Roper studies simply asked respondents to rate their use and believability between newspapers and television. This type of question did not take into consideration that respondents might perceive television news as coming from a national network rather than a local station. The disparity in quality between a national television network and a local paper has been hypothesized as the reason for television's apparent credibility gap over newspapers (Greenberg & Roloff, 1974). By not distinguishing between local newspapers and local television, these findings were of little value in settling the debate between print and television.

In terms of political information, the findings of the previous studies are even more suspect. Atwood and Sanders (1975) found that 43% of the respondents in Illinois designated television as the main source for election information in the primary, followed by newspapers and magazines at 31%. Just before the general election of 1972, the numbers were even more in favor of television as 78% of the respondents said it was their primary source of information. Atwood and Sanders noted their findings were similar to Roper's data which showed

television is strongly the first choice for information on state offices (Roper, 1973).

Abel and Wirth (1977) helped clarify this issue by looking at local television stations versus local newspapers in the Detroit market. Their findings showed that local television was reported to be the most truthful medium as well as the medium that presented the most important news. Reagan and Zenaty (1979) extended this study by comparing the local newspaper with local evening news programs rather than just local television stations. This study in Grand Rapids, Michigan showed that when confronted with a choice between TV and newspaper, 62% of the respondents regarded television as more believable than newspaper in presenting the news. Only 7% chose the newspaper over television while 5% said both, 7% said neither, and 19% didn't know. On a truthfulness scale from 0 to 100%, local television newscasts ranked ahead of the local paper 81.71 to 68.59. Reagan and Zenaty also found that higher education was related to lower levels of truthfulness for television and that people who watch fewer than two hours of television per day consider television to be more truthful than those who watch more than two hours per day. This latter finding contradicted an earlier study by Greenberg and Roloff (1974) that had

indicated greater use of medium was related to higher levels of credibility.

The issue of localism and media credibility was definitively addressed by a large study conducted by Gaziano and McGrath (1986, p. 455). In their nation-wide survey, they asked respondents to respond to several questions comparing local newspapers and local television. A question pertaining to reliability of coverage asked, "Overall, does local and state news seem more reliable when you see it on television, read it in a newspaper, hear it over the radio, or read it in a magazine?" The results showed 58% chose television over 24% for newspaper. The margin grew to 67% to 15% in favor of television when the question pertained to national and international news. When asked if they had to make a choice for a source of local news, television won again, 45% to 33%. The margin grew again when the same question relating to state news (58% to 29%) and national news (69% to 14). The convincing numbers and generalizability of this study helped to clarify the debate over which medium was most used and trusted. From this point, the real meaningful questions sought to understand why. Newhagen and Nass (1989) hypothesized that the credibility dominance of television news was due to its individualistic nature. They felt the credibility

judgments were based on the viewers' perceptions of the on-camera personalities. They hypothesized that newspapers, however, were separated by time and space between readers and therefore perceived more as an institution rather than a group of individuals. They found that television news anchors contributed more to a regression model measuring credibility than reporters or the variable of television as an institution. Confidence in newspapers, however, was based more on the paper's standing as an institution followed by perceived ethical standards.

The flaw in this analysis is that the authors failed to isolate television news as an institution; they only investigated television in general. Television news has traditionally held a substantially higher confidence rating than television as a whole (Gallup, 1996). From the results of their study, Newhagen and Nass attempted to categorize television news as being dramatically different from newspapers. They recommended that in order to make comparisons between the two media, it would be necessary to use independent sets of criteria, one for institutions and one for individuals or sets of individuals.

The present study, however, is based upon the idea that credibility can be measured on an institutional level for both media. Admittedly, anchor people and reporters

will have a greater contribution to the overall institutional credibility of a television news organization than the average newspaper reporter would have on the overall credibility of a newspaper. This can be partially attributed to the parasocial communication endemic to the audio-visual world of television.

Parasocial interaction has been referred to as the "seemingly face-to-face relationship" that develops between a television viewer and a television personality (Horton and Wohl, 1956; and Turner, 1993). This interaction also seems to be enhanced by the "realism" of television news (Rubin, Perse, & Powell 1985).

Despite the emphasis on TV personalities in television news, other factors mentioned earlier such as technical reliability, set design, and value of information have been found to contribute to a station's credibility (Schihl, 1982). Understanding this, the credibility of a television news can be studied at an institutional level, not as a study of individuals. If the goal is to study the credibility of the anchors themselves, then perhaps concepts relating to interpersonal studies would be more appropriate.

The argument put forward in this study is that all media institutions have an overall image that is shaped by many underlying factors, regardless of whether it is a

print or broadcast institution. The goal of this study is to understand the contributions of these factors with respect to each institution. This may be more fruitful than studying one media group as institution centered and another group with a different standard.

Perhaps the most important discovery in all of the believability studies of the last three decades was reported by Robinson and Kohut (1988). They found that news sources providing daily coverage of current events were grouped together by subjects in their study, regardless of medium. These sources were categorized as routine news sources. They also found routine sources to be the highest in believability. Factor analysis showed that local television news, network news, local radio, and the local daily newspaper all loaded together in terms of their believability rating. This grouping demonstrated the public does not necessarily view media as either print or television but in more abstract categories. The three main categories they discovered were: 1) routine sources; 2) specialty sources; and 3) soft news sources.

Specialty news sources included the Wall Street Journal and other national daily papers, and CNN. Soft news sources were found to include People Magazine and Readers Digest. Personalities like Tom Brokaw and Peter Jennings grouped together to form yet another factor.

By using this approach, a researcher does not assume television news as meaning only one thing to respondents. For instance, a person may consider both local TV news and national TV news magazines in two separate categories: routine news; and specialty news. Even though they are both television shows, the respondent may hold two very different levels of believability for each source. Such a distinction would not be possible by simply asking someone to report their credibility rating of TV news.

The work by Robinson and Kohut (1988) confirmed an earlier factor analysis study by Gaziano and McGrath, (1986), who found no clear differentiation between print sources and broadcast sources in terms of believability. While comparative studies are still being done, the focus seems to have shifted toward understanding the underlying contributions to media image and finding ways each medium can improve its credibility with the public.

Factor Studies

Early on, Hovland identified two components of credibility: trustworthiness and expertise (Hovland, Janis, & Kelly, 1953). A large number of studies would follow in an attempt to identify more dimensions through the use of factor analysis of semantic differential items.

Varied methods of approaching this issue, however, led to many conflicting findings.

Berlo, Lemert, and Mertz (1969) identified "safety," "qualification," and "dynamism" as the main factors comprising credibility. Jacobson (1969) found "authenticity," "objectivity," "dynamism," and "respite." Tuppen (1974) also found "objectivity" as a factor along with "articulation" and "charisma."

McCroskey and Jenson (1975) were critical of some of these factor studies, because they involved the credibility of public speakers (Whitehead, 1968) to prominent people (Berlo, Lemert and Mertz, 1969). McCroskey and Jenson sought to identify factors specifically related to the image of news media sources. They identified "competence," "character," and "sociability" as scales for measuring mass media news source image. Under the concept of competence alone, eight items loaded together such as believability, expertness, value, and informativeness.

As one can see, a seemingly endless stream of synonymous concepts can mushroom from even a small group of studies when different methods are applied. This mushroom effect is best illustrated by Singletary (1976), who asked participants to imagine what they believed to be a credible news source and list all of the attributes that

made this source credible to them. He found six major factors, "knowledgability," "attraction," "trustworthiness," "articulation," "hostility" (to the government), "stability," and thirty-five other factors.

Gaziano and McGrath, (1986) assembled the traditional dimensions of media credibility such as level of bias, accuracy, fairness, and concern about communities well being. They expected these concepts to separate into distinct dimensions, but they all ended up under one factor they labeled credibility.

Such findings might seem like an exercise in futility, but there are some beneficial elements that can be derived from all of these studies. Ryu (1995) points out: "Even if factor analysis does not help decompose the dimensions of credibility (that is, does not find clear-cut patterns in correlation's among items), audience members' scores of individual items help us understand what they think of the media's credibility."

This comment hits on a very important point. Identifying distinct factors of credibility may be difficult, but enough study has been given to the concept of credibility for a number of individual items to be consistently identified. These items can be used to form one strong reliable factor of credibility. By using such proven concepts as fairness, accuracy, expertise,

trustworthiness, and believability as individual items, researchers will not be straying too far from the sometimes elusive concept of credibility.

In studying institutional media credibility, however, it is important to focus on concepts that relate specifically to institutions. To help identify these concepts, the results from a number of credibility studies over the past four decades were sorted into three categories: institutional sources; individual or interpersonal sources; and sources that combined media institutions and individuals. By examining these studies by category, some patterns begin to emerge (See Appendix D).

As mentioned earlier, some of the studies focused on factors relating the source credibility or believability of individuals. Other studies have looked only at factors related to the credibility or believability of institutions, while still others have looked at both individual and institutional sources at the same time. Even though McCroskey and Jenson (1975) studied media sources, this study has been placed in the "combined" category because it used factors taken directly from interpersonal or individual source credibility studies.

The institutional studies, as one would guess, are characterized by factors that relate to organizations.

Accuracy, valuable, fairness, and community involvement are all distinct factors of institutional studies. Reliability is not associated with any of the individual studies and only is present in Markham's study that combined both individual sources and media sources (Markham, 1968). Trustworthiness is the only factor present in all three groups. This would seem logical given that people, as well as news organizations, have the capacity to be trustworthy, whereas the concept of accuracy would only make any real sense if applied to a news organization.

The factor of competence seems to be quite prevalent in the individual source and combined studies, but is not present in the institutional studies. A related factor of expertise was of course present in the Hovland study, but this study also included several individual sources along with the media sources (Hovland & Weiss, 1951). Dynamism also seems to be more a characteristic of individuals than of institutions.

Credibility As An Independent Variable

As mentioned earlier, this form of research was founded by Hovland and Weiss (1951), who conducted classic experiments to test the effects of source credibility. One group would be exposed to a source judged by the

experimenters to be low in credibility (e.g., Pravda) while another group would be exposed to a source determined to be high in credibility (e.g., Fortune). Their goal was to investigate two problems: 1) if credibility variations of source affected a person's evaluation of the message; and 2) if these variations affected the amount of opinion change. The results showed that the information from the source determined to be high in credibility was more trusted and as a result more persuasive than information from the source low in credibility.

These findings empirically confirmed what had been assumed for centuries. Schihl (1982) pointed this out by referring to Aristotle in his literature review. Aristotle believed that the dominant mode of rhetorical proof, ethos (a form of source credibility), consisted of an audience's confidence in a speaker's good sense or intelligence, good moral character, and good will.¹³

Since the early studies of Hovland and his associates, other studies have been conducted viewing credibility as an independent variable (Sternthal, Phillips, and Dholika, 1978; and Craig and McCann, 1978). Both of these studies support the idea that in most situations, a highly credible source is more effective

¹³ Rhetoric, Book II, Chapter 1, 1378^a8

than a less credible source in producing positive attitude change. This type of research has been especially helpful in advertising and marketing research. For instance, a research project may be as simple as testing the credibility of one spokesperson versus another. According to literature in this area, the ideal spokesperson would possess a sense of trustworthiness, be an expert on the product being marketed, and be attractive (Mills and Harvey, 1972; and Baker and Churchill, 1977; Joseph). Ohanian (1991) found, however, that the only one of these concepts which led to an increase in the likelihood of a purchase was expertise. In sports merchandise advertising, "expertise" is often effective with figures like John McEnroe endorsing tennis rackets (Ohanian, 1991).

Trustworthiness, expertise, and attractiveness can function independently or interact with each other. For instance, a financial advisor is considered trustworthy because of his or her background or expertise. This individual may also seem trustworthy because of the way he or she dresses. It is possible, however, to be highly trustworthy and have no expertise (e.g., a minister giving financial advice). It is also possible that the message from a source (salesperson) could be perceived as more credible by simply being affiliated with familiar product.

Gotlieb (1992) found that the familiarity of a product influenced the price a person would be willing to pay and the perceived quality of the product. Affiliation with a familiar product or institution then may lead to greater levels of perceived expertise and trustworthiness. This relates somewhat to the original study by Hovland and Weiss (1951) that compared the credibility of certain news stories affiliated with various sources of media. This idea will be tested in the present study by comparing the perceived credibility of the information provided on one web page sponsored by a fictional political interest group and two presumably well known routine news sources.

The persuasive relationship between a television news organization and its audience is different in one sense from the traditional advertiser to audience relationship and yet similar in another sense. It differs because in advertising, there exists a transactional relationship between a receiver, the receiver's money, the source's notoriety, and a tangible product such as a car. In television news, the person doesn't usually directly pay for each newscast; the viewer simply watches or does not watch based on whether the viewer believes the information is worthwhile or whether the information is presented in a way they like (Greenberg & Roloff, 1974 and Schihl, 1982). Advertisements and newscasts are similar in that to be

successful, both must be perceived as credible sources of information. How a television newscast becomes more credible requires at least two of the same variables, quality spokespersons and a quality product affiliated with a brand name. In the case of a local broadcast station, the brand name could be either its own familiar logo or affiliation with a major network. The spokespersons would be the anchor people. There are, however, other factors that relate to the overall credibility of a media institution (Schihl, 1982; and Ryu, 1995). Again, more will be said about this at the close of this chapter with the introduction of a new model relating to institutional source credibility.

Credibility As A Dependent Variable

As demonstrated by the studies using credibility as an independent variable, we know credibility is a significant contributor to the persuasiveness of a message. Knowing this, Delia (1976) posed the question, "By what means, that is by what perceptual or judgmental processes, does a receiver come to a particular credibility evaluation?" In response to this question, credibility as a dependent variable can be thought of in two ways: 1) source attribute; and 2) receiver attribute (Gunther, 1987). This portion of the literature review

will attempt to show how both of these contribute to the overall institutional credibility of a news source.

Source Attribute Studies

Source attributes have been used to examine how variations in presenting news affects how sources are perceived and/or the credibility of the information. A typical example is a study that asked whether the gender of a newscaster would affect the level of believability (Stone, 1974). Others have studied the relationship between technical manipulations, such as camera angle, on a source's credibility (Tiemens, 1970). McCain, Childberg, and Wakshlag (1977) tested the effects of vertical camera angles on a receiver's perceptions of the subject. The results indicated a high camera angle enhanced competence, composure, and sociability.

These types of studies have been useful for identifying specific attributes of sources related to credibility. For instance, Addington (1971) studied variations of speaking rate, pitch, voice quality, and articulation. Shosteck (1974) found voice quality and manner of speech were very important to a newscaster's appeal. Source attribute studies have also proven useful for testing assumptions about a particular type of source. This was demonstrated by Stone (1974) who found no

consistent difference in perceived believability between male and female anchors. Prior to Stone's study, it had long been held by most news directors that a man would be perceived as more believable than a woman anchor person.

Because of their specificity, however, source attribute studies do not offer a broad picture of source credibility at the institutional level. They offer results that apply to specific elements of institutions under certain circumstances and must be interpreted within these limitations. For instance, studies looking at factors related to the source credibility of news anchors look primarily at appearance, experience, and knowledge (Lynch & Sassenrath, 1966; and Catheart, 1970). Only experience is remotely applicable as a factor to determine the credibility of a television news institution. What this means is; concepts that are considered valid for source attribute studies may not be valid for studies relating to the overall credibility of a media institution. This will be an important point to keep in mind later on in the portion introducing the model for institutional media credibility.

Receiver Attribute Studies

Receiver attribute studies offer a new advancement in source credibility research. Rather than ask what

messages do to people, Gunther (1992) asks what do people do with messages. Within this paradigm exist two other important factors identified as: 1) the trans-situational trait of a person; and 2) the situation-specific relational variable (Gunther, 1987). What this essentially means is that a person's own bias or attitude (trans-situational trait) can interact with a news story on a particular issue (situation specific relational variable) to create an effect on the perceived credibility of the source. Gunther (1988) found when people hold a polarized attitude (in either direction) on an issue such as abortion, their trust in mass media coverage of that issue declines. It has also been found that trust in media treatment of a particular issue declines when the issue is seen as more controversial (Roberts and Leifer, 1975) or as bad news (Stone and Beell, 1975).

Citing social judgment theory, Gunther (1987) reasoned that a person who is highly involved with a particular issue would have a greater tendency to be skeptical of the message content and of message sources. He later narrowed this conceptualization to group membership. This concept was easier to define and thus to operationalize. Group membership can simply be thought of as membership in a political, religious, or ethnic group. Gunther's findings showed that if a person identified with

a particular group, he or she was more likely to say the media gave unfavorable coverage to that group than other respondents.

While this research identifies some useful concepts related to specific segments of the media audience, it does not offer an explanation as to whether group identification has any bearing on overall media credibility. However, this is not to say group identification is not important. In experimental studies, group identification can serve as a means of statistical control. By having subjects or respondents identify their group affiliation, the researcher can check for any intervening variables that may be present as a result of a strong bias on the part of certain portions of the sample.

It is also possible that while group identification has held constant in society, the level of controversial stories has changed. From this notion, one might hypothesize that an increase in news coverage on polarized issues such as abortion or gay rights might lead to a downturn in media credibility. Such a proposition would be testable in carefully sampled laboratory or field experiments. Control over content variables and maturation would be necessary to identify how such an interaction would affect the overall credibility rating of a routine media source.

The primary association of this literature to this study is that it demonstrates credibility is not related only to the cosmetic features of a television news source such as personalities and the news set. It appears from this line of research that content of the messages affects credibility as well.

Institutional Media Credibility

The concept of "institutional" credibility is certainly not new. Various polls are conducted each year to assess the credibility of American institutions such as religion, television, or government. In this context, institutional credibility generally boils down to a question pertaining to the respondent's confidence in a given institution at a given point in time (Gallup, 1985-1995).

This study, however, will attempt to look at institutional credibility in a more specific manner. First of all, credibility will be examined as it pertains to local television news organizations. Secondly, a model will be developed that identifies some possible factors that contribute to the overall or institutional view of local television news organizations. While the model is designed for this study on local television news

organizations, it is intended to be adaptable to other media institutions.

In reviewing the literature on source credibility, a very interesting issue pertaining to this study is evident. Source credibility seems to mean different things under different conditions. Variables identified in the factors studies of the 1960s and 70s show that some concepts were only present depending on whether the source was an institution or an individual. Media institutions have been found to be more closely aligned with accuracy, value of information, fairness, and community involvement. Credibility for individuals such as public speakers hinges more on concepts such as dynamism or competency. Trustworthiness is an element shared by studies on both institutional and individual sources (See Appendix D).

The differing results of these studies indicate people assign different levels of credibility to media institutions than they do to individuals (Sargent, 1965). For instance, measuring the credibility of a news anchor is not the same as measuring the overall credibility of a television station. This overall concept will be referred to in this study as *institutional media credibility*. Understanding this, it will be necessary to develop a model that attempts to describe the process by

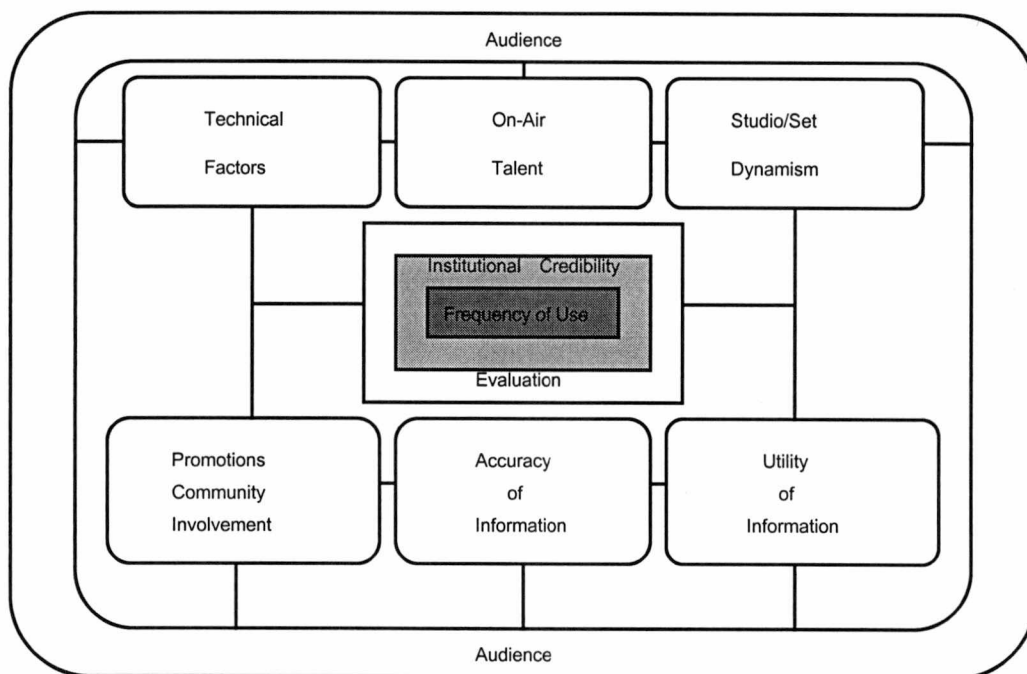


Figure 3-1. A Model of "Institutional" Media Credibility

which a media institution develops its overall credibility (See Figure 3-1).

It appears that in the case of a local television news organization, there are a number of "satellite" elements that contribute to the overall, or "institutional" credibility of the station. Schihl (1982) identified technical dependability, the anchor personnel, the news set, and frequency with which the station was viewed as significant contributors to a station's image.

Community involvement has been found to be a separate factor relating to the credibility of media institutions (Meyer, 1988; Ryu, 1995; Gaziano & McGrath, 1987). The perceived trustworthiness and accuracy of the reporting also have been found consistently as items relating to media credibility (Hovland & Weiss, 1951; Wesley & Severin, 1964). McCroskey and Jenson (1975) and Schihl (1982) found value of information to contribute to credibility. In this model, value is defined as utility of information. Gunther (1992) and Ryu (1995) have suggested that audience factors such as group identification can also contribute to situational credibility ratings of sources.

Breakdown of Model

In past studies, technical factors such as camera angles (Tiemens, 1970), lighting, and overall technical integrity (Schihl, 1982) have been studied as factors relating to a newscast's image or credibility. Schihl (1982) found that on-air talent contribute to image as well. In this visual world, stations spend a great deal of money on their studio/set. Items relating to community involvement have been found to form a weak factor in the study of credibility (Gaziano and McGrath, 1986). Utility of information is a relatively new concept based on the

findings of Schihl (1982) and McCroskey and Jenson (1975). They found value or usefulness of information to relate to credibility. Accuracy of information has also been included because of its association with credibility (Hovland & Weiss, 1951; Westley & Severin, 1964). While all of these concepts seem to have some relation to the overall concept of credibility, advancement of credibility research will require greater understanding of their independent contributions to credibility. Previous studies have looked at these elements in isolation, but this model attempts to bring together at least some of the identifiable components comprising the overall credibility of media institutions. In this case, the institution happens to be a television station.

The three elements of technical reliability, on-air talent, and the news set, are somewhat different from community involvement and utility of information. The technical factors, on-air talent, and studio/set are all elements well within the control of the station. Once in place, they remain fairly constant on a day-to-day basis. Promotions and community involvement, accuracy of information, and utility of information, however, require continuous effort on the part of the media institution.

Promotions and community involvement require an on-going effort to sustain interaction with the community. Stations are often involved in sponsoring community events such as concerts or blood drives. Another way a local station can demonstrate its involvement with the community is through the type of news coverage it offers. Such coverage may include special events programming of community affairs or special news segments relating to the community.

Utility of information is a broad concept derived from the field of economics that pertains to value or usefulness. In this study, it pertains to the actual information presented within the station's news product. It has several sub-categories, such as: 1) sufficiency; 2) relevance; 3) helpfulness.

Accuracy of information is simply a conscious effort by the media institution to guard against factual errors or even deceptive tactics that might tarnish the reputation of the source.

Concepts such as believability and trustworthiness are not used in relation to utility or accuracy of information. These concepts are not included because information can be accurate or inaccurate, useful or not useful, but information in and of itself does not necessarily possess the properties of believability or

expertness. These are attributes associated with people or institutions, not information. Information, then, requires a human or institutional source to give it believability.

All of the elements in the model link together and are also directly linked to the audience. The center of the model describes the interactions of the six elements and the audience they connect with. The first phase of this interaction is the evaluation process. In this phase, the audience makes an initial determination of whether the messages from the source are worth attending to. The decision to attend to a message may be influenced by any one or more of the six elements previously discussed in the model. Once attention has been devoted to the message, the person begins to evaluate the messages based on their own personal relationship to the message. For example, according to the model, judgments regarding the truthfulness or fairness of the information take place in the evaluation portion. This is consistent with the findings of Gunther (1987) who found that a person's own subjective evaluation of a source can affect his or her perception of fairness. According to the model, these perceptions are derived not from one isolated element, but from a combination of elements. Therefore, all of these elements at one point or another contribute to the

overall, or "institutional" credibility of the news source. By achieving high levels of institutional credibility, the ultimate reward for the news source is frequency of use.

Studies have shown credibility is related to frequency of use (Greenberg & Roloff, 1974; and Schihl, 1982;). Because correlation does not infer causality, there is still room for debate on whether credibility leads to frequency of use or vice versa. When carefully considered, however, it seems more plausible that overall credibility (as derived from the anchors, information, set, technical factors, and promotions) ultimately leads to frequency of use. To argue frequency of use precedes the others is to say all of the other elements do not significantly contribute to a station's credibility. This would be at odds with studies showing these elements do contribute to credibility (Schihl, 1982; and Newhagen and Nass, 1989). Further support for credibility leading to frequency of use stems from research done by Wanta and Hu (1994). They found that credibility contributed to reliance on news media.

This model suggests direct effects in credibility come from alterations to one or more of the six elements surrounding institutional credibility, not from frequency of use. Frequency of use within the context of this model

is the ultimate goal when referring to commercial news programs from routine news sources.

Because this model is designed for studying routine commercial news programs from routine sources, some limitations relate to its applicability. It does not apply to soft news sources, such as "Current Affair" or "Hard Copy." According to Robinson and Kohut (1988), people do not consider these as routine news sources. This model is also not applicable to non-commercial sources of news. The model accounts for promotions and production techniques that are generally not prioritized as highly by non-commercial news organizations. For example, "The News Hour" with Jim Lehrer is a very believable and credible news program, but this high level of credibility does not translate into high viewership. This may be the result of other factors related to the non-commercial format of the show such as a slower pace, less visual stimulation and fewer resources than the major network news shows.

The focus of this dissertation will be on two elements in this model: community involvement and the utility of information. These two elements have been chosen because much is already known about the effects of source attributes like set design, technical quality, and anchor personnel (Tiemens, 1970; Stone, 1974; and Schihl,

1982), but little has been studied concerning the effects of content (Gunther, 1987; and Ryu, 1995).

The model for media credibility assumes that community involvement and utility of information are contributing factors to the overall credibility of a media source. In this case, community involvement and utility of information constitute a belief that contributes to an overall attitude about the credibility of a media source. According to persuasion theory, it should be easier to detect changes in these sub-parts of the attitude rather than the attitude itself.

Summary

In the preceding chapters, declining public confidence in television news as an institution was identified as an important problem. Public confidence is closely related to the concept of trust and trust is related closely to the concept of credibility. For this reason, literature pertaining to credibility and persuasion research has provided the theoretical basis for this study.

The purpose of studying this approach is to determine if exposure to extra information on a web page sponsored by a local television news organization will lead to increased perceptions of community involvement and utility

of information for the stations involved. Because community involvement and utility of information have been identified as components of credibility (Schihl, 1982; Ryu, 1995), increases in these two elements may eventually lead to higher levels of overall credibility.

Early research on credibility focused on identifying certain factors that comprised credibility (Sargent, 1965; Berlo, Lemert, & Mertz, 1969; McCroskey & Jenson, 1976). More recent work has sought to extend this research by investigating not only what concepts or components comprise credibility, but how actions by media institutions impact these concepts (Schihl, 1982; and Gunther, 1987, 1988;). This study attempts to determine whether and how individual components of media credibility can be influenced by extending news coverage through the WWW.

Based on persuasion theory, it is likely that changes in a person's perception of a media institution will be more detectable by studying the components of credibility rather than the overall concept of credibility itself (Katz, 1970). This is especially critical to this study in which a limited exposure to a web page is the only stimulus that will be used to influence the perceptions of the subjects.

Conducting credibility research in this manner will allow for more precise measurement of factors influencing perceptions of credibility. Increased understanding of these influences may assist media professionals in determining a course of action against the recent decline of public confidence in television news media (Gallup, 1995).

Hypotheses

Given this background on various factors related to credibility, the following relationships are hypothesized:

- H1 Sponsorship of candidate issue information by a routine news source leads to an increase in the overall credibility rating of the source.

Hypothesis one is based on the knowledge that perceived value or utility of information along with community involvement are related to credibility (McCroskey & Jenson, 1975; Gaziano & McGrath, 1987; and Schihl, 1982). In this study, an attempt was made to offer subjects information that might extend the utility of information a local television news organization would normally provide on local political candidates. Because the candidates were relatively local, it was also

predicted that exposure to this information would have some effect on the perceived level of community involvement. According to the model of institutional media credibility, if the effects on utility of information and or community involvement are substantial, the perception of overall credibility might also be affected.

According to the previous section on persuasion theory, if a significant change in the overall credibility of a source is detected, then it would be likely that a significant change in either one or both of the manipulated elements of the model (community involvement and utility of information) would be present as well.

H2 Sponsorship of candidate issue information by a routine news source leads to an increase in the perceived level of community involvement of the source.

H3 Sponsorship of candidate issue information by a routine news source leads to an increase in the perceived utility of information of the source.

This study will also attempt to advance previous studies related to media credibility research. A vast

amount of the literature suggests that the believability of a message is related to the credibility of the source (Hovland & Weiss, 1951; Berlo, Lemert, & Mertz, 1969; Jacobson, 1969; Robinson & Kohut, 1988). These studies compared believability between media entities with either a good or bad record of credibility. In this study a comparison between a higher credibility television news source and lower credibility source will be made. A comparison will also be made between familiar sources and unfamiliar sources. Based on the above studies, it would be expected that information from these varied sources will differ in level of accuracy, helpfulness, and whether the subjects indicate a likelihood of returning to the site.

Because several combinations for direction of differences exist between these groups, no direction is predicted in the following hypotheses. The prediction is simply that the credibility of the information will vary depending upon the source. If a difference between groups is detected on any of the dependent variables, a post hoc test will be used to determine the direction of the difference.

- H4 Perceived accuracy of candidate issue
information is related to source.

H5 Perceived helpfulness of candidate information
is related to source.

H6 Likelihood of revisiting the experimental web
site is related to source.

Exposure to media has shown varying relationships between knowledge about political races and voting confidence. Choi & Becker (1987) found that media use had an effect on voting confidence. Weaver & Drew (1993), however, did not find any relationship between media use and voting confidence or intention to vote. Both of these studies were conducted as surveys. In such studies, there is always the risk that respondents may not have accurately rated their exposure to media, thus affecting the results. By conducting an experiment, it was possible to control the amount of candidate information subjects were exposed to. Considering the greater control over exposure afforded by an experiment, it was hypothesized that exposure to political information would positively affect the level of voting confidence. It was also predicted that exposure would lead to greater confidence in the political system, a greater likelihood of voting, and greater recall of candidate names.

- H7 Exposure to online issue information leads to increased levels of confidence in a person's ability to make an informed decision.
- H8 Exposure to online issue information leads to increased levels of confidence in the political system.
- H9 Exposure to online issue information leads to a greater likelihood of political participation.
- H10 Exposure to online issue information leads to greater recall of candidate names.

Choi and Becker (1987) found that voter confidence was not related to TV news, but related to newspaper readership. Ability to discriminate between issue positions was only related to newspaper readership. Hypotheses eleven and twelve seek to examine these relationships and the interaction among the variables of media preference and amount of media usage.

H11 Media preference and amount of use are related to confidence in making an informed decision.

H12 Media preference and amount of use are related to recall of candidate names.

Reagan and Zenaty (1979) found that people who watch fewer than two hours of TV per day consider TV news to be more truthful than newspapers. This finding contradicted earlier results from Greenberg and Roloff (1974) that showed greater use of media to be associated with credibility. In terms of news viewing, Schihl (1982) found consistent relationships between level of viewing news and station credibility. Even though the sample in this study is not representative of the population, it still offers an opportunity to ask a question concerning the issue of media use and credibility. Additional questions explore the amount of previous web use and its relation to perceived helpfulness, accuracy, and willingness to revisit the experimental site.

Research Questions

R1 Is amount of media use related to perceived levels of credibility?

R2 Does level of previous web use relate to
perceived helpfulness of web information?

R3 Does level of previous web use relate to
perceived accuracy of web information?

R4 Does level of previous web use relate to
likelihood of revisiting?

Information on how people perceive web information in relation to other media supplying political information will also be examined. Information on the experimental web site will be analyzed in relations to preconceived notions about bias and depth of information provided on television newscasts. User preference for candidate issue information will be examined between traditional media and the World Wide Web.

R5 When asked to rate information from the
experimental web site compared to the
level of bias on television news, what
percentage of subjects will rate the
information as more biased, less biased,
or about the same?

- R6 When asked to rate information from the experimental web site compared to the level of in-depth political coverage on television news, what percentage of subjects will rate the information as more in-depth, less in-depth, or about the same?
- R7 If given only one choice for obtaining information about candidates running for Congress and the U.S. Senate, what percentage of subjects will choose political web sites versus television newscasts or newspapers?

Chapter 4

Method

The data for this study were collected by conducting a laboratory experiment. The experiment involved a pretest, random assignment to one of three groups, exposure to a specially created web page stimulus, and a posttest. This design was chosen as a means of measuring small changes in the three credibility variables. It also allowed for comparing the perceived credibility of the information between exposure groups or identified sponsorship conditions.

Although the layout and content of each experimental site were identical, the sponsorship of each site was changed. Holding the information constant while altering the source is a technique consistent with previous experimental tests of media credibility (Hovland & Weiss, 1951, Hovland, Janis, & Kelly, 1953). By holding information constant while altering the source, it was possible to measure the effect of the respective sources on perceptions of the accuracy and helpfulness of the information contained on the experimental web sites. Also, the pretest-posttest design permitted measurement of

any effect the experimental condition might have on the perceived credibility of the television station sponsoring the web site.

Experimental analysis was chosen for two primary reasons: 1) At the time of this study, less than five percent of the U.S. population was considered to be frequent users of the World Wide Web (Traiman, 1996). Due to this limitation, methods traditionally associated with mass communication research such as random sample surveys would have been difficult because of low valid response rates and the lack of a reliable list of web users. An experimental approach made it possible to have control over the content to which the participants would be exposed to by creating experimental web pages. This was important because the model of media credibility suggests a cause and effect relationship between content and credibility. In order to isolate and detect such changes, an experimental design with a pretest and posttest was determined to be the best method.

Stimulus

The stimulus consisted of three web sites created especially for this experiment. As previously mentioned, the sites contained identical information. Only the sponsorship of each site was manipulated. The content

consisted of political issue information relating to congressional candidates in the 1996 Tennessee State Primary.

One experimental site was designed to appear as though sponsored by the top-rated local television news organization in the local market, while a second site was designed to appear as being sponsored by a lower rated television news organization. Permission to use the logos and call letters of each station was obtained at the outset of the study. The third station in this market did not authorize use of its logo, therefore, a web site was not created for this institution. The third site was designed to appear as being sponsored by a non-partisan interest group identified as Concerned Voters for Tennessee. While the name of this interest group was purely fictional, it does represent the type of interest groups posting political information on the Web. Sponsorship of each site was designated by a large logo on the title page and smaller logos on subsequent pages (See Appendix E).

Prior to assembling the three web sites, measures were taken to enhance the validity of the web page stimulus. While it could be assumed the news organization with the higher audience ratings would be considered more credible than the other lower-rated station, it was

necessary to confirm this before proceeding with a research design based on this assumption. It was also necessary to determine a neutral sounding name for the fictional interest group's web site. A name with any perceived political bias was a possible threat to how the information would be perceived (Gunther, 1987).

In order to screen these issues, a short questionnaire was given to a small group of subjects (N=17). In the first part of the questionnaire, a series of seventeen items measured various elements of credibility on a five-point semantic differential scale with one being the most credible. The station assumed to be highest in credibility (1.55) was found to have a statistically different credibility rating than the station believed to be lower in credibility (2.65) ($t = 14.20$, 16 df, $p = .0001$). In the results portion in chapter five, these stations will be referred to as the higher credibility source and the lower credibility source.

The second group of questions asked participants to rate a list of five different names of political interest groups in terms of the level of political bias they might have. The data were collected by simply listing the name and having the subject respond to a five-point Likert scale. Two of the names were from real political interest

organizations, while three were fictional names. By simply adding the ratings for each name, Concerned Voters for Tennessee was found to elicit virtually no perception of political bias in any direction making it a suitable neutral sounding "fictional" name for an interest group.

Each web site was created by two individuals possessing at least one year of experience in authoring web pages. The pages were authored using HTML language and were designed for use with Netscape Navigator 2.0 Software. At the time the pages were created, HTML was a standard authoring language and Netscape Navigator 2.0 was one of the more advanced software packages used for viewing web pages on the World Wide Web. All of the HTML and graphics files were downloaded to a server. From this location, the page could be accessed from any computer on the World Wide Web.

The experimental web pages included information on congressional candidates in the first four congressional districts of Tennessee. The pages were limited to these four districts because these were the districts in Tennessee within the coverage area of the television news organizations under study. They were also the districts most likely to be of interest to the sample involved in the experiment. One congressional primary was of

particular interest because it contained at least twelve viable candidates.

It should also be noted that in addition to providing profiles on most of the major congressional candidates in the first four districts, profiles were also presented on the two major party candidates running for the lone U.S. Senate seat up for election in the 1996 Tennessee Primary.

Information on the candidates was obtained through various methods including personal interviews, published statements, voting records, and from campaign personnel. The number of candidates was limited only to those running as either Republicans or Democrats. Only one of these major candidates declined to submit any material for inclusion in this web site. All but two other candidates provided complete files containing pictures, issue statements, and biographical information requested. Two candidates sent pictures and biographies only.

All races accessible on the page were broken down by district, party affiliation, and of course by candidate. Once the user selected a particular candidate, photos and biographies of each were made available along with a listing of ten issues. Each issue contained roughly a three to five sentence comment from the candidate.

While the study was primarily focused on the relationship between the information and source

credibility, consideration was also given to the packaging of the information. The graphics, pictures, and information provided on these pages were assembled to look as professional as possible. This was done to make the subjects using the site believe it was an active web site actually created by the source identified on the page. Although the experimental pages were not pretested for aesthetic appeal or ease of use, the posttest survey confirmed they were perceived as professionally constructed and easy to use.

Generally, most web sites are linked to other sites. This is done to allow web users to go directly to another source of interest simply by selecting a certain word or title associated with another site. None of the three experimental web sites, however, was linked to any other sites so as to limit exposure during the stimulus portion of the experiment to only the information contained on the experimental web pages. This also assured that the exposure would be consistent for all three groups.

Subjects were told before the browse session that the pages had been modified to keep them from linking to other sites. This information was provided because most sites contain such links and a conspicuous lack of these links without explanation might have made some subjects suspicious of the authenticity of the experimental site.

Sampling and Procedures

The sample for this experiment was comprised of 169 undergraduate and graduate students from the University of Tennessee. Participation by subjects was obtained through extra credit given by the instructors of several summer courses. Of the 169 original subjects, 121 completed all three data collection phases. Of the 121 who completed all phases, 73 were women and 48 were men. The majority of the sample was made up of 52 senior undergraduates and 27 graduate students. The remainder of the sample consisted of 23 Juniors, 17 Sophomores, and only 2 Freshmen.

The sample was drawn from several different disciplines: broadcasting, education, information science, journalism, and speech. The sample was drawn from these five academic areas because for some professors, participation in the study was contingent upon willingness to work the experiment into their courses as a class related exercise. Naturally then, professors teaching communication related courses were more open to incorporating a web browsing exercise into their courses. Another reason for the limited sample was that no resources were available for providing a tangible incentive to recruit subjects from outside the campus.

It should be noted that more than thirty students from a political science course participated initially in the study but had to be disqualified due to an error in the HTML code. This error caused some students to be linked to a different experimental site than they had been assigned.

Although no incentive was offered by the author of this study, some instructors chose to offer extra credit to their students as an incentive for participation while other instructors simply encouraged participation as part of a class project.

Data were collected during four phases in the course of this experiment: 1) pretest number one; 2) pretest number two; 3) exposure to web site stimulus; and 4) posttest. The first phase involved pretesting the subjects to determine their initial impressions of the media organizations under study. This testing period was conducted several weeks prior to exposure to the stimulus and the subsequent posttesting in an effort to reduce sensitization effects. The second phase involved the administration of a pretest just prior to exposure to exposure to the web page stimulus. This test measured the subjects' confidence in making an informed decision in the upcoming primary, confidence in politicians, confidence in democracy, and likelihood of voting. This information was

collected just prior to the experiment and immediately after to eliminate the possibility of maturation effects. The third stage involved the administration of the web site stimulus. The fourth stage involved a posttest designed to measure the same variables included in the two pretests. All four stages of the experiment were conducted within six weeks of the Tennessee State Primary held on August 1, 1996.

Two weeks following the first pretest, the second pretest, exposure, and posttest were administered. Groups of five to twenty-five students reported to one of three computer labs on campus for a period of about forty to forty-five minutes. Each testing area was partitioned in order to keep subjects from discovering what participants in other groups were viewing. Upon entering the testing area, subjects were randomly assigned to one of the three experimental web page conditions. Each participant was seated at a personal computer with a color monitor fourteen to seventeen diagonal inches in size. Before the arrival of the subjects, the monitors were turned off so the subjects would not be able to see the stimulus until it was time to begin the browse session. After each subject was seated at a computer, they were told they were participating in a study regarding political information on the World Wide Web. This description regarding the

purpose of the study was rather vague in order to keep subjects from identifying the specific purposes of the experiment. Subjects were also informed about their rights as a volunteer in the experiment.

Following the orientation to the study, the subjects were given a brief demonstration on how to use a web browser to navigate a web page. This was done to make sure all participants were at least somewhat familiar with using the Web even though most of the sample reported having some previous web browsing experience.

Just prior to exposure to the web page, subjects were pretested for confidence in making an informed decision in the upcoming primary, confidence in politicians, and confidence in the American political system. As mentioned earlier, the reason data were collected immediately before the exposure was to guard against any maturation effects associated with these variables.

Following this brief pretest, the subjects were then told to turn on their monitors. At this time, the web page representing the source to which subjects had been assigned appeared, and they could begin browsing. Each subject was given twenty minutes to view the page. This length of time had previously been determined as sufficient through an informal test with several users. Given the observations during the exposure session, this

time period seemed to offer most subjects enough time to view all of the information contained in the web site at least once. Nearly all participants appeared to be actively searching for information for ten minutes, while about seventy percent searched actively for fifteen minutes. After fifteen minutes however, many of the subjects seemed to have completed their search and nearly all seemed to have completed searching for information by the twenty minute mark. Following this browse session, the subjects were asked to fill out a posttest and were then debriefed.

As mentioned earlier only 121 of the initial 169 subjects actually participated in both the pretest and posttest portions of this study. As with any study that has a delay between the pretest and posttest, some attrition is almost certain. The lack of participation in the various stages of this experiment can be attributed to subjects choosing not to participate in the study or simply not being present on the day the subsequent testing procedures were conducted. Nevertheless, 121 subjects completed all phases of the experiment providing a workable sample size for a three group lab experiment.

The groups in this experiment were fairly well balanced in size. Group one ($N = 39$) was exposed to the fictional interest group. Group two ($N = 40$) was exposed

to the web page sponsored by the higher credibility station, while group three (N = 42) was exposed to the lower credibility source.

In order to make a before and after comparison, subjects had to be tracked throughout the data collection process. This was done by employing two basic methods: 1) Subjects were required to put the last four digits of their social security number and last two digits of their phone number on each questionnaire they filled out. For reasons of confidentiality, only the final digits were used. By adding the last two digits of the subject's phone number, it was possible to verify instances in which the subjects listed their social security digits incorrectly from one testing instrument to the next or simply did not write some digits clearly; 2) Each survey instrument used on the day of exposure contained a mark on the last page near the staple. This mark coded the survey as either belonging to exposure group one, two, or three. By matching the social security numbers and phone numbers with the initial pretest, direct before and after comparisons were then possible.

Measurement and Data Analysis

There were three different data collection periods in this study. In the first phase, subjects filled out a

questionnaire to pretest their attitudes about the credibility of local media institutions (See Appendix A). The second phase involved measuring different aspects of political participation and recall of candidate names (See Appendix B). In the third phase, data were collected regarding credibility, participation, and recall (See Appendix C).

Both pretest and posttest instruments featured the use of five point semantic differential scales to collect data regarding media credibility. The semantic differential scale was used because of its utility for measuring attitudes (Fishbein and Ajzen, 1975). Seven-point Likert scale items were used to measure differences in the participation variables of confidence in making an informed decision, likelihood of voting, and confidence in the political process.

The questionnaire used in the initial pretest included twenty-three questions. The first six questions were designed to gather categorical and ordinal level data pertaining to party affiliation and media use. The next seventeen items asked the subjects to rank four local media outlets on issues relating to the credibility of their news coverage. An additional two media organizations, one print, and one television, were added to the questionnaire to make it more difficult for the

subjects to determine the purpose of the study. As mentioned earlier, rankings for each item were measured with a five digit semantic differential scale. This data allowed for the creation of at least one media credibility index. It was hoped other distinct variables would emerge as a result of factor analysis.

Twelve of the seventeen media credibility items were adopted from the ASNE study (Gaziano & McGrath, 1986). Of these twelve items, four were included to measure the expertise or professionalism of the media institution. Professionalism or expertness have been found to be discrete components of media credibility (Hovland & Janis, 1951; Schihl, 1982). Four more items relating to the perceived community involvement of news media were included as well. Ryu (1995) found community involvement to be a second, yet relatively weak factor explaining 8 percent of the variance in media credibility. Because the two media outlets being used in this experiment were local, it was thought that community involvement might be relevant to this particular experiment. Measures of fairness, reliability, accuracy, and trustworthiness were also included. These items have been found to create a reliable index for credibility (Hovland and Weiss, 1951; Westley and Severin, 1964; and McCroskey, 1966).

The remaining five items consisted of one item measuring an overall impression of credibility and four items measuring utility of information. It was not known whether the concept of utility of information would act as an independent factor of media credibility or simply contribute to a larger factor. The Model of Institutional Media Credibility suggests that overall credibility is a product of several components of credibility with utility of information being one of these components.

These same seventeen items were included on the posttest questionnaire subjects filled out after the exposure period. This allowed for direct before and after measurement of media credibility, thus isolating possible effects of the web site stimulus.

As mentioned earlier, the pretest administered immediately before exposure to the web page stimulus was designed to collect data on participation variables. These variables included: confidence of subjects in their ability to make informed decisions in the upcoming Tennessee Primary; confidence in the current political system; and likelihood of voting. These items were measured with a seven point Likert Scale. Subjects were also asked to identify local congressional candidates by simply writing down names in a space provided. These same items were then placed on the posttest questionnaire.

This allowed for before and after comparisons on the participation and recall variables. While these variables do not relate to the primary credibility focus of this study, it was hoped a better understanding of the relationship between exposure to issue information and participation could be obtained from this data.

The posttest instrument contained items corresponding with the initial pretest items measuring media credibility, participation, and recall. It also provided ordinal data relating to: 1) accuracy and helpfulness of the information contained on the web page stimulus; 2) amount of previous exposure to the World Wide Web; 3) amount of exposure to locally televised sources of news; 4) perceived level of bias contained in the information on the web site stimulus (compared to traditional media); and 5) perceived level of in-depth coverage provided on the web site stimulus (compared to traditional media). Additional nominal data were collected on party affiliation and demographic information.

As indicated earlier, data were collected during three separate phases in this study: 1) pretest of political affiliation and media credibility (conducted three weeks prior to exposure to stimulus); 2) pretest of participation and recall variables (conducted immediately before exposure to stimulus); 3) posttest of media

credibility, and participation and recall variables (conducted immediately following exposure to the stimulus). Other items in the posttest were used to collect data on the accuracy and helpfulness of the information contained on the web page stimulus, media preference for obtaining information on local politics, and several demographic variables.

Key Variables

A more detailed look at the key variables used in this study will be provided shortly. In summary, the main dependent variables in this study are: 1) media credibility; 2) community involvement; 3) utility of information; 4) helpfulness of information; 5) accuracy of information; 6) likelihood of repeated usage; 7) participation variables such as likelihood of voting, confidence in making an informed decision, etc.; and 8) recall of candidate names.

The main independent variables are: 1) exposure to the web site stimulus; 2) exposure group; 3) amount of previous web use; 4) amount of previous use of traditional news media; 5) type of traditional media used; and 6) station viewership. Other independent variables included demographics, political affiliation, level of

identification with a political party, and ideology ranking (liberal or conservative).

Main Dependent Variables

Media Credibility

For the purpose of this study, media credibility was defined as the overall credibility of a media institution. This definition was operationalized by measuring concepts related to accuracy, trustworthiness, fairness, reliability, and four items relating professionalism and an item measuring overall credibility. These items have been consistently used as valid and reliable measures of credibility (Hovland & Weiss, 1951; Westley & Severin, 1964; Markham, 1968; and Stone & Hoyt, 1974).

Community Involvement

Community involvement is a concept representing the perceived level of community involvement ascribed by subjects to a given media institution. This variable was operationalized by measuring four items: 1) involvement with community; 2) concern for public interest; 3) concern for the community's well being; 4) and whether the news organization watches out for people's interests. These concepts were adopted from an earlier study on credibility

in which an index for community involvement emerged in a factor analysis (Ryu, 1995).

Utility of Information

Utility of information was defined as the level of usefulness subjects assigned to the information encountered on their respective web sites. This variable was formed by measuring four related concepts: 1) usefulness of information; 2) sufficiency of information; 3) whether information impacted daily decisions; and 4) whether the subjects felt the media institution covered important stories. The concept of utility of information is based on the findings of Schihl (1982) who found value of information to be a concept relating to the image of local television stations.

The model of institutional media credibility postulates that community involvement and utility of information contribute to overall credibility of media institutions. It was not known, however, whether each of these variables would create independent factors or simply load with other measures of credibility. For this reason, they were considered as separate dependent variables in this phase of the study.

Helpfulness of information and Accuracy of Information

Helpfulness of information and accuracy of information were each comprised of a single item measured on a seven-point Likert scale. Helpfulness of information is basically a single item measure for utility of information. Accuracy of information has been found to be closely associated with the concept of credibility (Westley & Severin, 1964). It also seemed to be an appropriate concept for evaluating responses to fairly detailed information contained on the web site.

Likelihood of Repeated Usage

Because credibility has been found to be associated with frequency of use (Greenberg and Roloff, 1974; and Schihl, 1982), this concept was included as a measure of credibility. This variable was comprised of four items. Two questionnaire items pertained to whether subjects would revisit the web page stimulus or recommend it to their friends. Another aspect of this variable was created by asking subjects to estimate the likelihood of using the web page stimulus again if more information was added. A fourth item asked subjects how likely they would be to visit any politically oriented web site before the November election.

Details on the factor loadings for the preceding variables will be given in the results portion. For some variables, the actual construction of the index for the analysis may vary somewhat from the preceding description of how they were intended to be grouped.

Participation Variables

Participation variables are listed as follows: confidence in making an informed decision; likelihood of voting in the primary; likelihood of voting in the general election; and voter apathy. All items were measured with a seven-point Likert scale. In addition to the preceding items measuring attitudes, a variable measuring recall of candidate names was also included as part of the participation variables.

Confidence in making an informed decision, likelihood of voting in the primary, and likelihood of voting in the general election were all single item measures. Voter apathy was created by three items pertaining to how the subjects perceived the American political system. The three items asked subjects to respond as to whether they thought American democracy works, whether politicians care what people think, and whether their individual vote matters.

Recall of candidate names was simply defined as the number of Congressional and U.S. Senate candidates serving districts one through four that subjects were able to recall. By testing this variable before and after exposure to the stimulus, an increase the number of names recalled per subject could be measured.

Main Independent Variables

Exposure To Web Site Stimulus

This variable is constructed as a twenty minute session in which subjects were allowed to view/browse an experimental web site containing issue information on congressional and U.S. Senate candidates of local interest. Exposure to this variable was analyzed for its effect on the participation variables and recall.

Exposure Group

Exposure group was designated by variations in sponsorship of web sites to which subjects were exposed. While the candidate issue information was identical for all three groups, the sponsorship was different for each of these groups.

The exposure group variable was used to determine if exposure to a site sponsored by one of the two television news sources led to increases in the level of perceived

overall credibility, community involvement, and or utility of information for that particular station.

The exposure group variable was also used to determine if sponsorship of the site had any effect on the levels of perceived accuracy and helpfulness of the information. This variable was also important in determining if sponsorship of the site had any effect on whether subjects would likely use the site again. Given the previous research on credibility, it was hypothesized that accuracy and helpfulness of the information would vary by source.

Previous Web Use

This variable was simply defined as the amount of self-reported web use on a three point forced choice answer. This allowed for coding the responses into low, medium, and high use categories. This variable was included as a control variable and to investigate a possible relationship between web use and perceived credibility of information obtained from the experimental web site.

Previous Use of Traditional Media

Previous use of media was measured in several ways. The first data collected was categorical. This item

simply asked subjects to identify the medium they used most often to get political information (Newspaper, Television, Radio, or Other). The second measure was used to determine the number of times per week subjects watched a local six o'clock newscast on television. Although the data were collected using a four item forced choice answer, the data were considered ordinal. Next subjects were asked which local television station they watch the most. This was simply a categorical choice. The next item asked subjects to offer information on how often they read the local daily newspaper. Again, this was a four-point forced choice item providing ordinal data on level of readership. This variable was included as a means of controlling for media use and to follow up on previous research indicating a relationship between media use and perceived credibility.

Data Analysis

The first step in the data analysis was to conduct a factor analysis and varimax rotation of all seventeen items used in the measurement of credibility. An eigenvalue of 1.0 was established as the cut off point for factor extraction. For an item to be considered loaded on a resulting factor, a loading of .60 or higher was required with no loading of .40 or higher on another

factor. These criteria are based on a standard used by McCroskey and Jenson (1975) in their classic study of media credibility. In order for a group of items to be considered a factor, at least three items were required to load together.

Confirmatory factor analysis was conducted on credibility items from the pretest only. This was done because the purpose of the study was to measure changes in a credibility index based on initial impressions of the respective media institutions. A group of three items measuring confidence in America's political system and a group of four items measuring likelihood of revisiting the experimental web site were also subjected to factor analysis.

Once the factor analyses were completed, reliability checks were done on each of the factors composed of three or more items. As mentioned earlier, the actual results of the factor analysis and reliability coefficients for the respective indexes will be given in the results portion.

The first three hypotheses predicted that sponsorship of candidate issue information by a routine news source would lead to increases in the overall credibility rating, perceived community involvement, and perceived utility of information. A paired t-test was used to determine

whether any change in these variables had taken place as a result of exposure to the web page stimulus.

Hypotheses four predicted that the source variable would have an effect on the perceived accuracy of information obtained on the experimental web site. Hypothesis five predicted source would effect the perceived helpfulness of information. Hypotheses six predicted that source would also have an effect upon the likelihood of whether subjects would revisit the experimental web site. Because no direction for the difference between groups was hypothesized, a simple one-way ANOVA was used to analyze each of these three hypotheses.

Hypotheses seven through ten predicted that exposure to online issue information contained on the experimental web site would positively affect the four participation variables. The relationship for each variable was analyzed with a paired t-test.

Hypotheses eleven and twelve suggest media preference and amount of use are related to confidence in making an informed decision and recall of candidate names. The confidence variable was drawn from pretest data only. This was done in order to make comparisons based on actual media use and preference before the exposure session.

Recall of candidate names was tested by comparing before and after levels of recall.

Media preference was defined as medium selected as the primary source for news about political information. Two other categories available on the questionnaire were radio and other.

As a means of increasing the likelihood of familiarity with local media, only those subjects indicating they were residents of the four local voting districts were included in this analysis. As a result of limiting the sample, only seven remaining subjects had selected radio as a medium of preference and none chose other. Because of the extremely low number of subjects choosing radio and other, these subjects were not included and media preference was categorized as either newspaper or television. Levels of media use was then collapsed from four categories to just two (low use and high use).

A 2x2 factorial ANOVA was used to test the relationships in hypotheses eleven and twelve. This allowed the independent variables of media preference and amount of use to be analyzed for their relationship to confidence in making an informed decision (H 11) and recall of candidate names (H 12).

The remainder of the formal analysis was devoted to investigating seven research questions.

The first question asked whether media preference and amount of use is related to the perceived credibility of local news sources. Because the independent variables in this hypothesis are identical to those in hypotheses eleven and twelve and the dependent variable is also ordinal level, a 2x2 factorial ANOVA was used in this analysis.

Research questions two through four sought to determine whether level of previous web use was related to three separate variables. To analyze each of these questions, a simple correlation test was used.

Research question five asked subjects to rate information from the experimental web site in terms of being less biased, more biased, about the same as similar information from television reporters. Data for this question were analyzed by using simple percentages.

Research question six asked subjects to rate information from the experimental web site in terms of being more in-depth, less in-depth, or about the same as similar information provided on television newscasts. Again, simple percentages were used to analyze this data.

Question seven asked subjects which medium they would choose (television, newspaper, or political web sites) if only one could be selected for obtaining information about

local congressional candidates. Data was analyzed by determining percentages between groups.

Chapter 5

Results

Before presenting the results directly pertaining to the hypotheses and research questions, it will be necessary to discuss results of several confirmatory factor analyses. These findings are associated with the formation of several key variables to this study.

Preliminary Analysis

Seventeen items believed to be associated with credibility were entered into a factor analysis for each of the two local television news sources in this study. The analysis was conducted on credibility scores obtained from the first pretest. While 169 subjects participated in the first pretest, only 121 of these subjects participated in all three phases of the study. Because this index of credibility would be used to compare findings from before and after exposure to the web page stimulus, it was necessary to create an index based on only those cases coded as having participated in all phases of the study. Table 5-1 shows the results of this factor analysis for both local television news sources.

Table 5-1. Factor analysis for credibility items for local television news sources

Item	Station 1	Station 2	
	(higher credibility source)	(lower credibility source)	
	Factor 1	Factor 1	Factor 2
Accurate	.82	.46	.71
Competent	.84	.30	.32
Concerned about Community	.73	.48	.56
Fair	.73	.08	.86
Impacts my daily decisions	.43	.29	.26
Provides important information	.83	.83	.27
Community Interest	.79	.37	.68
Involved with community	.62	.62	.30
Overall impression	.85	.85	.25
Professionalism	.83	.81	.29
Concern for public interest	.71	.46	.57
Committed to quality newscast	.89	.72	.49
Reliable	.83	.71	.39
Professional staff	.87	.73	.45
Provides sufficient information	.80	.45	.63
Trusted	.86	.56	.64
Provides useful information	.82	.69	.39
Alpha = .917		Alpha = .815 Alpha = .786	

As can be seen from Table 5-1, all seventeen items loaded onto one factor for the higher credibility source, with an eigenvalue of 10.65. This group of items explained 62.6% of the variance of these credibility measures. Factor loadings for the station lower in credibility, were somewhat different, however. One fairly strong factor emerged with an eigenvalue value of 9.50 along with a second factor with an eigenvalue of 1.02. Factor 1 explained 55.9% of the variance, while Factor 2 explained 6.0%. Because there was no dominant loading for either factor, all items with the exception of one were compiled into one measure of credibility. The item not included in the final overall credibility index was "impacts my daily decisions". This variable was not included because it did not show a loading of over .60 for either station. After removing this item and resubmitting the remaining 16 items to factor analysis, satisfactory loadings were apparent for both station one and station two. These indexes were then tested for reliability. The reliability of the index measuring credibility of station one was .964, and the level for station two was .937.

In addition to developing an index to measure the overall credibility of each station, indices were also created to measure specific components of credibility for each station. Each of these components was comprised of

four items. One set of items was designed to measure the community involvement of the station, while the other set of items measured utility of information. Table 5-2 shows the factor loading of items for community involvement and Table 5-3 shows the factor loadings for utility of information.

The four items entered in the community involvement index generated an eigenvalue of 2.63 for the higher credibility source and an eigenvalue of 2.55 for the lower credibility source. The indexes explained 65.8% of the variance on this variable for station one and 63.7% of the total variance for station two.

Table 5-2. Factor analysis for community involvement

Item	Station 1	Station 2
	(higher cred. source) Factor 1	(lower cred. source) Factor 1
Concerned about the community	.85	.87
Watches out for your interest	.84	.79
Concerned about public interest	.76	.76
Involved with community	.78	.77
	Alpha = .818	Alpha = .808

Table 5-3. Factor analysis for utility of information

Item	Station 1	Station 2
	(higher cred. source) Factor 1	(lower cred. source) Factor 1
Covers important stories	.87	.84
Provides sufficient information	.82	.79
Provides useful information	.89	.88
	Alpha = .858	Alpha = .824

Only three of the four items entered in the utility of information index loaded together. The item measuring impacts my daily decisions did not load as strongly as the other three items and also lowered the reliability coefficient when present in the index, thus it was not included in this index. The utility of information index for the higher credibility source had an eigenvalue of 2.39 and explained 79.28% of the variance. For the lower credibility source, this index had an eigenvalue of 2.23 and explained 74.57% of the variance.

A fourth index measuring the likelihood of revisiting the experimental web site was also created (See Table 5-4). This three item index had a reliability coefficient

Table 5-4. Factor analysis for likelihood of revisiting

Item	Factor
Use again	.81
Use again if more Information added	.91
Recommend site to a friend	.92
Alpha = .906	

of .865. This factor had an eigenvalue of 2.36 and explained 78.8% of the variance in this variable.

Hypothesis Testing

Hypothesis one suggested the overall credibility rating of routine news sources would increase following the exposure of subjects to the information contained on the experimental web sites sponsored by the respective news sources. This hypothesis was tested by comparing means of overall credibility before and after the exposure.

The increase in perceived overall credibility stated in hypothesis one was not supported by the data for either news source. Therefore, the null hypothesis is not rejected. In fact, had hypothesis one suggested a

decrease in the level of credibility, this decrease would have been statistically significant ($df = 37$, $t = -2.340$, $p = .013$). The decrease in credibility for the lower credibility source, however, would have not been statistically significant (See Table 5-5).

The suspicious decrease in credibility from pretest to posttest was cause to consider some possible reasons for this occurrence. According to Kerlinger (1986), pretest and posttest studies are subject to sensitization effects and regression effects. A sensitization effect occurs when a subject's answers on the posttest are not necessarily influenced by the experimental stimulus, but by exposure to the pretest. A regression effect is based on the premise that particularly high or low scores from the pretests tend to regress toward the mean on the

Table 5-5. Overall credibility before and after exposure

Treatment Group	<u>Means</u>		df	t	p
	Before	After			
Higher credibility source (local TV station number 1)	1.937	2.078	37	-2.340	.987
Lower credibility source (local TV station number 2)	2.412	2.579	39	-1.283	.896

(1 = Highest Credibility, 7 = Lowest)

posttest. Such effects can lead to faulty conclusions about the effect of the experimental variable.

Understanding this, measures were taken to confirm the presence of a testing effect and estimate its size.

The first step was to create a credibility measure representing all four media institutions included on the survey. This allowed for measuring the overall effect for all media institutions and for all subjects regardless of exposure group. Two of the local media institutions rated by the subjects had no connection with the experimental procedure. The other two media institutions were represented on their respective experimental web pages. A treatment group of 40 subjects was exposed to the higher credibility source and a group of 42 was exposed to the lower credibility source. This still left approximately two-thirds of the subjects unexposed, therefore the two experimental sources were included in the overall measure. This overall measure was created by combining the pretest credibility ratings of all four institutions into one variable and the posttest scores for all into a new posttest variable.

Once the new variables had been constructed, a paired t-test was conducted with all of the subjects that had completed the pretest and posttest. Results from the t-test showed that the overall credibility rating

significantly decreased for the combined media variable from a mean of 2.279 on the pretest to 2.370 on the posttest ($df = 108$, $t = -1.889$, $p = .031$). This offered evidence that there was a relatively high probability of a testing effect in the posttest data. Based on this evidence, it was determined that posttest scores would need to be adjusted to account for this effect. Exactly how this adjustment would be made required a closer examination of the data.

Further analysis showed the testing effect was more pronounced for female subjects than male subjects. Overall credibility ratings of the combined media variable showed a significant drop from pretest (2.132) to posttest (2.325) for females ($df = 66$, $t = -4.233$, $p = .0001$). No significant difference was found for male subjects from pretest (2.500) to posttest (2.438) ($df = 42$, $t = .639$, $p = .251$). The drop in credibility ratings among females may have been due to the fact that females initially gave higher credibility ratings on the pretest (2.140) than males (2.500) ($df = 107$, $t = 2.907$, $p = .002$).

With this information, it was possible to adjust posttest scores by gender. Because the decrease in perceived credibility for females between pretest and posttest was .193, this amount was subtracted from the posttest credibility ratings for all female subjects. The

credibility ratings of the male subjects actually increased .062 from pretest to posttest. This amount was then added to all posttest scores for males. Even though the difference between pretest and posttest scores for males was not statistically significant, the difference in mean scores (.062) was still factored into the adjustment. This was done for the primary purpose of consistency. Failure to adjust the scores for males may have increased the risk of over correcting the female scores and committing a Type I error.

The primary purpose for adjusting the scores in this manner was to correct for an apparent testing effect upon gender. For some reason, only females exhibited a marked decrease in their credibility rankings of all media institutions from pretest to posttest. It is possible that at some point between the pretest of attitudes about the credibility of the four local media institutions and the posttest, some intervening variable was introduced beyond the controls set forth in this experiment.

After the new values had been added, a paired t-test was conducted with the original pretest scores and the adjusted posttest scores. Table 5-6 shows the results of this analysis.

Table 5-6. Overall credibility before and after exposure (Adjusted)

Treatment Group	<u>Means</u>		df	t	p
	Before	After			
Higher credibility source (local TV station number 1)	1.937	2.000	37	1.08	.840
Lower credibility source (local TV station number 2)	2.412	2.488	39	-.594	.722

(1 = Highest Credibility, 7 = Lowest)

The results still show a slight decrease in the credibility ratings for both stations; however, this decrease was not statistically significant. This finding showed that after adjusting the scores, the apparent negative reaction to the experimental stimulus in the initial test disappeared. However, the results offered no evidence that the web page stimulus had any positive effect upon overall credibility ratings of the two stations.

Hypothesis two stated that the level of perceived community involvement attributed to routine news sources would increase following the exposure of subjects to the information contained on the experimental web sites sponsored by the respective news sources. Table 5-7 shows the results of a paired t-test used to test hypothesis two.

Table 5-7. Perceived level of community involvement

Treatment Group	<u>Means</u>		df	t	p
	Before	After			
Higher credibility source (local TV station number 1)	2.089	2.089	38	.000	.500
Lower credibility source (local TV station number 2)	2.381	2.443	39	-.469	.679

(1 = Highest Involvement, 7 = Lowest)

As can be seen from Table 5-7, there was little variation from pretest to posttest on the community involvement measure. In fact, the means for station one were identical in both the pretest (2.089) and posttest. Although the rating of community involvement decreased somewhat for station two, this decrease was not significant. The results of this analysis show that there is a very low probability that the web page stimulus had any positive effect on the variable of community involvement. Therefore, hypothesis two is rejected.

The results also indicate that there is little likelihood of a significant testing effect on this variable. As a precaution, however, a two-tailed paired t-test was conducted on a variable grouping all four media for any changes in level of community involvement. The

results showed no statistically significant difference from pretest to posttest in community involvement ($df = 107$, $t = .470$, $p = .580$). Because no statistically significant negative effect was found on this variable, no attempt was made to adjust the scores for a testing effect.

Hypothesis three stated that perceived utility of information for routine news sources would increase following exposure to information contained on the experimental web sites sponsored by the respective news sources. Table 5-8 shows the results of a one-tailed t-test on utility of information by treatment group.

The increase in perceived levels of utility of information stated in hypothesis three was not supported by the data. Not only must hypothesis three be rejected, the opposite effect actually occurred for the higher credibility source. Had hypothesis three predicted a decrease in perceived utility of information, a paired t-test showed this decrease would have been statistically significant ($N = 38$, $t = 2.130$, $p = .020$) for the station highest in credibility. No statistically significant decrease was found for the lower credibility source.

Table 5-8. Perceived level of utility of information

Treatment Group	<u>Means</u>		df	t	p
	Before	After			
Higher credibility source (local TV station number 1)	1.947	2.114	38	-2.130	.980
Lower credibility source (local TV station number 2)	2.414	2.455	40	-.291	.614

(1 = Highest Utility, 7 = Lowest)

With the presence of a statistically significant decrease for one of the sources, the possibility of testing effects were examined for all four media sources. The mean levels of utility of information for all four media institutions were 2.166 in the pretest and 2.328 in the posttest. A one-tailed, paired t-test showed this difference approached significance at the .05 level (df 118, $t = -1.448$, $p = .075$). Though not statistically significant, it was felt this decrease warranted at least the examination of adjusted findings for utility of information.

As with the posttest results in hypothesis one, utility of information scores for females decreased significantly from pretest (2.119) to posttest (2.307) (df = 70, $t = -3.262$, $p = .001$). No statistically significant difference in pretest scores and posttest scores were found for males. The results of the

respective t-tests suggested that .187 be deducted from scores of female subjects and .067 be added to the scores of male subjects. Table 5-9 shows the results of a paired t-test on utility of information after the adjustments.

The adjusted results in Table 5-9 indicated that the web page stimulus did not have any positive effect on increasing the level of perceived utility of information. However, by adjusting for the apparent testing effect, no significant decrease was detected.

In addition to checking for the effect of gender upon the overall scores, two other control variables were also examined for their relationship with the overall credibility scores for all four media. Research by Gunther (1987) indicated that strength of political identification to either the right or left was related to

Table 5-9. Perceived level of utility of information (Adjusted)

Treatment Group	<u>Means</u>		df	t	p
	Before	After			
Higher credibility source (local TV station number 1)	1.947	2.040	37	-1.117	.865
Lower credibility source (local TV station number 2)	2.414	2.367	40	.345	.172
(1 = Highest Utility, 7 = Lowest)					

perceived bias in the media. An ANOVA showed that strength of political identification did not vary with overall credibility scores for all four media institutions ($F(4/89) = .152, p = .962$), thus no precautions were taken to control for strength of political identification.

Because some of the subjects sampled were not registered to vote in one of the four local counties, it was thought that locality might have been a factor in the level of credibility ascribed to each media institution. However, a simple t-test comparing overall credibility for all four media institutions between subjects living in the four districts and those subjects outside these districts did not show any statistically significant differences ($t = -.703, df = 86, p = .485$). Of all the control variables, gender was the only one that seemed to have any clear effect upon the level of credibility, thus it was accounted for.

Hypothesis four stated that perceived accuracy of candidate issue information is related to the source from which it originates. Table 5-10 shows the results of a one-way ANOVA. The results did not reveal any statistically significant variation between groups ($F(2/131) = 1.749, p = .178$). Thus, the null hypothesis could not be rejected for hypothesis four.

Table 5-10. Accuracy of information by exposure group

Treatment Group	Perceived level of accuracy	df	MS	F	p
Higher credibility source (local TV station number 1)	3.043	2/131	3.27	1.74	.178
Lower credibility source (local TV station number 2)	2.772				
Fictional interest group (concerned voters of TN)	3.318				
(1 = Highest Accuracy, 7 = Lowest)					

In looking at the means, however, there is a conspicuous difference between station two and the interest group. In order to determine whether station two's perceived accuracy of information was actually higher than the fictional interest group's, a one-tailed t-test was conducted. The results indicate the means of perceived accuracy of information differed significantly from station two (2.77) and the fictional interest group (3.31) ($df = 86$, $t = 1.904$, $p = .030$). No mean differences were found to be statistically significant between the two television stations or between station one and the political interest group.

The mean difference between station two and the political interest group on perceived accuracy of information indicates something other than chance caused

this difference. However, the lack of significance between station one and the interest group and the lack of significance of the one-way ANOVA shows that there is no solid evidence that subjects felt the information from routine media sources was anymore accurate than the same information from an unfamiliar source on the web.

Hypothesis five stated that helpfulness of the candidate information is related to the originating source. Table 5-11 shows the mean differences between the three experimental sources.

Although the means seem to be divergent between the two routine news sources and the fictional interest group, a one-way ANOVA did not reveal any statistically significant variation between groups ($F(2/131) = 1.368$, $p = .258$). Based on these results, hypothesis five was not supported by the data.

As with hypothesis four, a noticeable gap in the means indicated that levels of perceived helpfulness of information might be higher for one or both of the groups exposed to the routine news sources than the group exposed to the web site sponsored by the fictional interest group. To determine whether the higher mean levels possessed by one or both of the routine news sources were statistically significant, a one-tailed test was used.

Table 5-11. Helpfulness of information by exposure group

Treatment Group	Perceived level of helpfulness	df	MS	F	p
Higher credibility source (local TV station number 1)	2.195	2/131	3.37	1.37	.258
Lower credibility source (local TV station number 2)	2.090				
Fictional interest group (concerned voters of TN)	2.613				

(1 = Highest Helpfulness, 7 = Lowest)

The likelihood that the mean of station two was higher than the political interest group by something other than chance approached statistical significance at the .05 level ($df = 86$, $t = 1.512$, $p = .067$). No strong evidence of a difference on perceived level of helpfulness was present between the information provided by station one and the political interest group.

The mixed results from the analysis of hypothesis five shows some weak evidence to suggest that the subjects perceived the information from the routine news sources as more helpful than the same information from the unfamiliar interest group. Taken as a whole, however, there is no

solid support for hypothesis five, therefore the null hypothesis is not rejected.

Hypothesis six stated that likelihood of revisiting the web site would be related to the source of information. Table 5-12 shows that any variation between groups was not statistically significant. Therefore, the null hypothesis was not rejected.

Hypothesis seven stated that exposure to online issue information leads to increased levels of confidence in making an informed voting decision. On a seven-point Likert scale with one being the most confident and seven being the least, the mean level of voting confidence before exposure was (4.530), the mean level after the twenty minute browse session was (3.815) (See Table 5-13). A paired t-test showed that this increase in confidence was statistically significant ($N = 130$, $t = 5.22$, $p < .0001$). Based on this finding, hypothesis seven was supported and the null hypothesis rejected.

Hypothesis eight stated that online issue information leads to increased levels of confidence in the political system. Because one of three items designed to measure

Table 5-12. Likelihood of revisiting site by exposure group

Treatment Group	Likelihood of revisiting	df	MS	F	p
Higher credibility source (local TV station number 1)	3.014	2/131	8.87	.427	.653
Lower credibility source (local TV station number 2)	2.810				
Fictional interest group (concerned voters of TN)	3.007				
(1 = Highest Likelihood, 7 = Lowest)					

Table 5-13. Confidence in making an informed decision

Item	Before	After	df	t	p
Confidence	4.530	3.815	130	5.22	.0001
(1 = Highest Confidence, 7 = Lowest)					

this concept did not load with the other two items, each item was analyzed separately. Table 5-14 outlines the mean differences for all three of the items before and after the exposure.

A paired t-test conducted on each of the three items revealed no differences between the pretest and posttest: American Democracy works (N = 131, t = .435, p = .664); Your individual vote matters (N = 131, t = .895, p = .373); Most politicians don't care (N = 131, t = 1.459, p = .147). While there was a small increase relating to each item, these mean differences were not large enough to offer support for hypothesis eight.

Table 5-14. Mean levels of confidence in the political system before and after exposure to web page stimulus

Item	Before	After	p
American Democracy works	3.236	3.198	.664
Your individual vote matters	2.748	2.679	.373
Most politicians don't care what the average person thinks	3.855	3.725	.147

(1 = Highest Confidence, 7 = Lowest)

Hypothesis nine stated that exposure to online issue information leads to a greater likelihood of political participation. This hypothesis was tested using two participation variables, likelihood of voting in November, and likelihood of voting in the primary. Table 5-15 shows the average scores before and after exposure to the web page stimulus.

As can be seen from Table 5-15, there was little change in the likelihood of voting in November from pretest to posttest. A paired t-test confirmed that this slight difference was not statistically significant ($N = 135$, $t = .624$, $p = .533$). The same test showed that the mean difference in likelihood of participating in the primary was statistically significant at the .05 level ($N = 135$, $t = 1.886$, $p = .031$). Based on these findings, there is partial support for hypothesis nine.

Hypothesis ten stated that exposure to online issue information leads to greater recall of candidate names. The mean differences for this variable are indicated in Table 5-16. The table represents the mean number of last names recalled for both congressional candidates and senate candidates before and after exposure to the web page stimulus. It should be noted that only two senate candidates were really involved in this race.

Table 5-15.

Likelihood of voter participation

Item	Before	After	df	t	p
Likelihood of voting in November	2.288	2.207	134	.624	.533
Likelihood of voting in primary	3.923	3.694	130	1.886	.031

(1 = highest likelihood, 7 = lowest)

Table 5-16. Mean number of candidate names recalled

Candidate type	Before	After	df	t	p
Congressional	.450	2.488	130	-14.713	.0001
Senate	.282	.885	130	-9.450	.0001

As indicated by the mean scores, the average subject was unable to recall one house or senate candidate prior to exposure to the web page stimulus. Following the twenty minute browse session, results from a paired t-test show a statistically significant increase in recall of congressional candidates ($N = 131$, $t = 14.713$, $p < .0001$). Recall of senate candidates also improved ($N = 131$, $t = 9.450$, $p < .0001$). Therefore, hypothesis ten is supported.

Hypothesis eleven stated that media preference and amount of use are related to confidence in making an informed decision. This hypothesis was tested in two phases. The first phase involved conducting a 2x2 factorial ANOVA analyzing the effect of media preference (newspaper or television) and level of television news viewing. The second phase involved a 2x2 factorial ANOVA analyzing the effect of media preference and level of newspaper readership on confidence in making an informed decision.

As indicated in Table 5-17, TV news viewership had a main effect upon confidence in making an informed decision. This effect is clearly visible in Figure 5-1.

Table 5-17. Sources of variance in voting confidence due to media preference, level of television news viewership, and their interaction

Variance Source	df	MS	F	p
Media preference	1	5.58	6.65	.181
TV news viewership	1	4.83	5.76	.031
Preference x viewership	1	2.06	2.46	.468
Within-cells error	71	2.75		

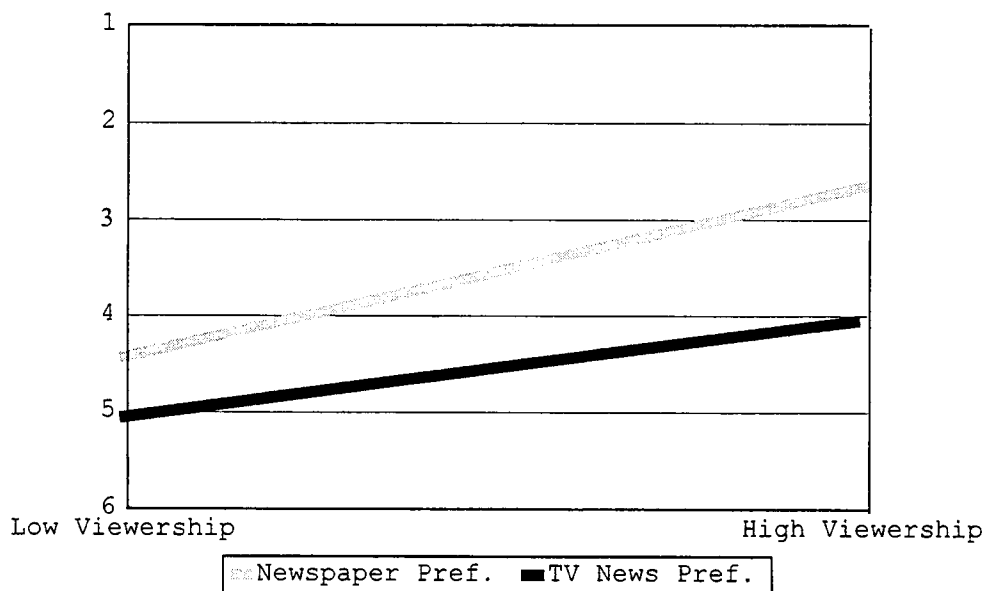


Figure 5-1. Confidence In Making An Informed Decision
By Media Preference and Local TV News Viewership

Subjects preferring the local daily newspaper as their primary source of political news possessed higher confidence levels in both low and high viewership categories, but variation by media preference was not statistically significant. Figure 5-1 also implies that voting confidence for those preferring newspaper becomes higher with the amount of television news viewing, but this variation was not found to differ from that of subjects preferring television.

In the second part of the analysis for hypothesis eleven, newspaper readership and media preference did not have any main effects upon voting confidence and no interaction effect between preference and readership was present (See Table 5-18 and Figure 5-2). Based upon the findings in both parts of the analysis, there is only partial support for hypothesis eleven.

Table 5-18. Sources of variance in voting confidence due to media preference, level of local newspaper readership, and their interaction

Variance Source	df	MS	F	p
Media preference	1	.044	.001	.987
Newspaper readership	1	.063	.021	.885
Preference x readership	1	1.87	.623	.433
Within-cells error	71	3.00		

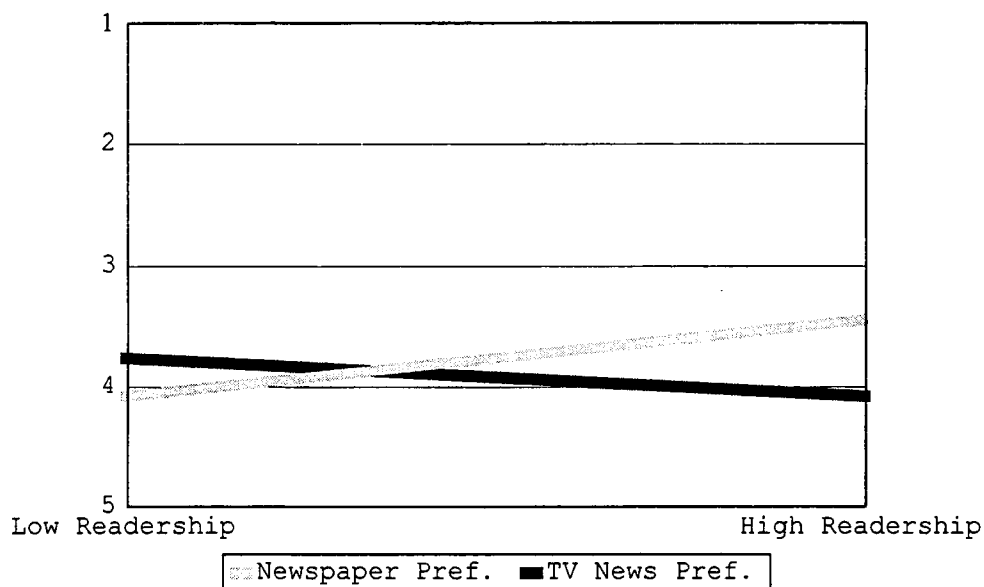


Figure 5-2. Confidence In Making An Informed Decision
By Media Preference and Local Newspaper Readership

Hypothesis twelve stated that media preference and amount of media use are related to recall of candidate names. In this analysis, recall was limited only to the names of candidates for the House of Representatives. As with hypothesis eleven, a two part approach was taken to analyze the data for this hypothesis.

From Table 5-19 and Figure 5-3, it can be seen that subjects who prefer newspaper as their source for political information and view a high amount of television news have a much higher level of recall than subjects who prefer television news regardless of their viewing level.

Table 5-19. Sources of variance in recall of candidate names due to media preference, level of local TV News viewership, and their interaction

Variance Source	df	MS	F	P
Media preference	1	5.58	6.65	.012
TV News viewership	1	4.83	5.76	.019
Preference x viewership	1	2.06	2.46	.121
Within-cells error	71	3.00		

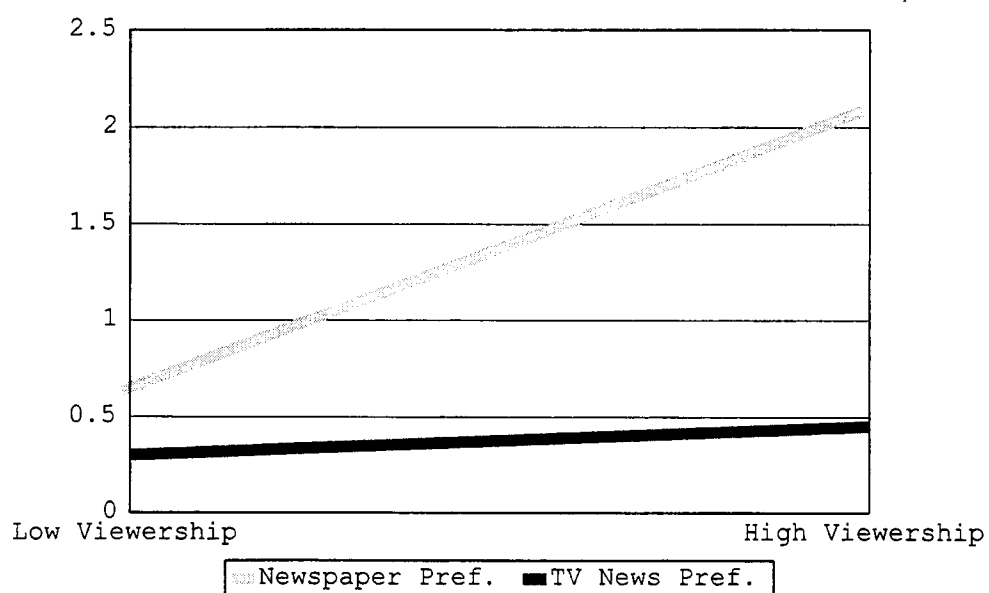


Figure 5-3. Recall of Candidate Names
By Media Preference and Local TV News Viewership

Even though the data do not indicate a statistically significant interaction effect between newspaper preference and television news viewing, the sharp rise for those preferring newspaper in Figure 5-3 shows that there is an apparent interaction taking place between newspaper preference and TV news viewing.

When considering newspaper readership, media preference does not appear to relate to candidate recall (See Table 5-20 and Figure 5-4). However, level of newspaper readership is significantly related to recall of candidate names. This relationship is especially strong for subjects preferring the local newspaper as their primary source for political news while only mildly increasing recall for those preferring local TV news. Therefore, the interaction effect between preference and readership is statistically significant as well.

Table 5-20. Sources of variance in recall of candidate names due to media preference, level of local Newspaper readership, and their interaction

Variance Source	df	MS	F	p
Media preference	1	.700	.84	.362
Newspaper readership	1	4.57	5.48	.022
Preference x readership	1	3.81	4.57	.036
Within-cells error	71	2.93		

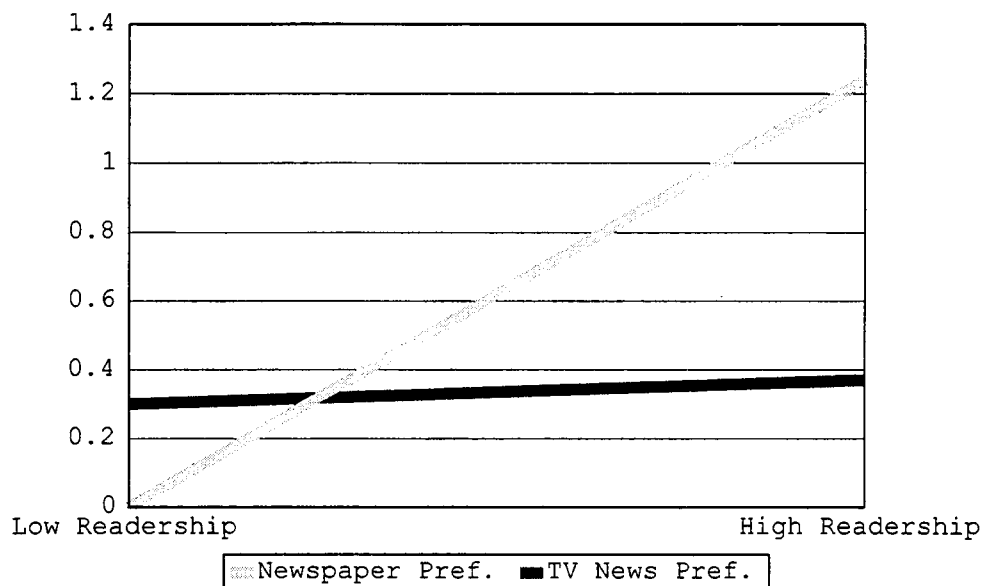


Figure 5-4. Recall of Candidate Names
By Media Preference and Level of Local Newspaper Readership

Based on the preceding findings, there is fairly strong support for the hypothesis that media preference and level of media use are related to recall of candidate names. However, the results show that increases in media use seem to affect recall more dramatically for those subjects choosing newspaper as their primary source of political information. Subjects indicating television news as their primary source do not seem to benefit from increase media use.

The findings pertaining to hypotheses eleven and twelve must be considered in the light of small sample

size for high newspaper readership ($N = 5$) This may have been partially due to the relatively young age of the sample. More than seventy percent of the subjects completing the final questionnaire reported themselves as being under twenty-five years of age. Only nine percent reported being above thirty-five. Research shows that heavy newspaper readership is correlated with being older and being male (Gaziano and McGrath, 1986). The sample in this study was primarily younger and female.

Research Questions

Research question one asked whether a relationship between the credibility index and amount of media use would be evident for the local news media. In this analysis, the three television stations were grouped into a single television news variable and the local daily newspaper was analyzed separately for level of credibility by level of use

As can be seen from Table 5-21, use of television news is related to levels of credibility. A similar relationship cannot be inferred from the results pertaining to use of the local newspaper. The relationships appear negative because higher credibility is actually represented by a lower number. This finding

Table 5-21. Correlation between level of media use and level of credibility

Station	(N)	<i>r</i>	<i>p</i>
Television News	132	-.285**	<.01
Local Newspaper	148	-.088	.286

does in fact demonstrate a positive relationship between level of use and perceived level of credibility. This relationship is statistically significant for use of television news, but not for use of the local newspaper.

Research questions two through four asked whether previous use of the WWW would have any relationship with the perceived helpfulness of the information, the perceived accuracy of the information, and the likelihood of revisiting the experimental web site? Based on the Pearson product moment correlation coefficients generated by the analysis, none of these variables correlated significantly with level of previous web use (see Table 5-22).

As Table 5-22 indicates, there were no significant correlations found between previous web use and the three variables referred to in research questions two through four.

Table 5-22. Correlations with level of previous web use

Variable	(N)	<i>r</i>	<i>p</i>
Helpfulness	(110)	.119	.216
Accuracy	(110)	.078	.420
Revisit	(110)	.096	.319

Research question five asked whether subjects would rate the information accessed on the experimental site as more biased, less biased, or about the same as information on television? Research question six asked whether subjects would rate the information on the experimental web site as more in-depth, less in-depth, or about the same as information obtained from television news. Using television news as the standard, Figure 5-5 shows how subjects rated the web information in terms of bias and depth of information.

The results in Figure 5-5 show only three of the 135 subjects felt the information on the experimental web site was more biased (2.2%) while 43.3% said it was less biased. A majority of the subjects (71.9%) viewed the experimental web site as a more in-depth source of local political information than traditional television news sources.

Research question seven asked what percentage of subjects would choose political web sites versus

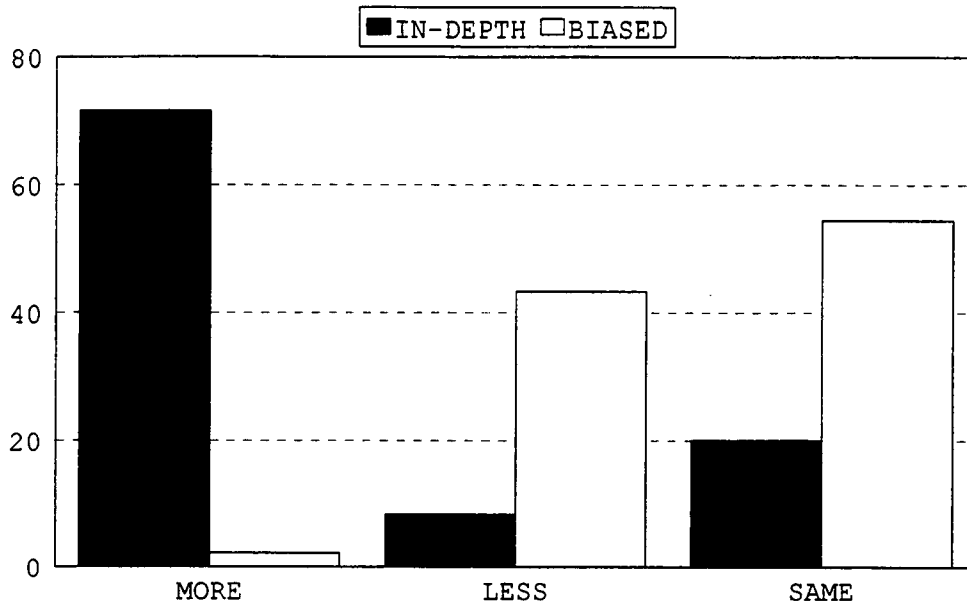


Figure 5-5. Comparison of Bias and In-depth Political Information
Experimental Web Site Versus Traditional TV News

traditional media if only given one choice. Figure 5-6 shows the results of this analysis.

The majority of subjects said they would choose the Web as a primary source of information on political candidates versus other media. Responses to questions five through seven indicate a pattern demonstrating promise for the World Wide Web as a viable source of political information. These results, however, must be interpreted in the light of the experimental condition.

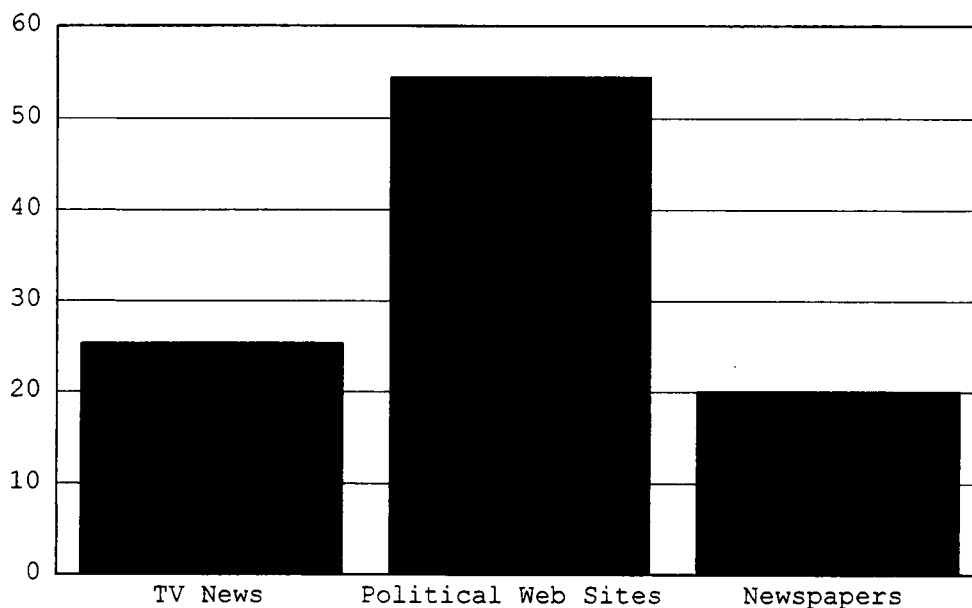


Figure 5-6. Choices of Political Information
If Only Given One Choice (In Percents)

The stimulus in this study was, of course, a web page. Subjects may have been conditioned to respond favorably to the web page due to their exposure to it just moments before filling out the posttest. Nevertheless, the results seem strong enough to warrant further research on comparing the Web with traditional media.

The ability of the subjects to identify the sponsor of the respective experimental sites was not addressed by any of the hypotheses or research questions, but the contrast between recall of the media sources versus the fictional interest group is worth reporting.

Due to an oversight on the original questionnaire, only 43 of the 135 subjects participating in the posttest

were asked to identify the sponsor of the web site they were exposed to. Of these 43 subjects, 31 were able to correctly identify the source. However, recall was much better for those subjects exposed to the web pages sponsored by the local television stations than subjects exposed to the page sponsored by the fictional political interest group. Of the 34 subjects exposed to the experimental pages sponsored by one of two local television stations, all but four of these subjects were able to correctly recall the call letters of the station sponsoring the page. Conversely, only one subject out of nine exposed to the experimental site sponsored by the fictional interest group was able to correctly recall the name of the sponsor.

This finding indicates that at least for these subjects, recall of the sponsor was quite good for the sites sponsored by a familiar source like a local television news organization compared to an unfamiliar source.

The findings of this limited sample indicate a good possibility that the logo contained on each of the web pages served to offer a sufficient means of identifying both local television stations. This same method appears to have not been sufficient for a source that was not familiar to the subjects.

Conclusions

The results of this study are mixed. While subjects demonstrated increased levels of voting confidence and recall of candidate names, no increase in perceptions of utility of information, community involvement, or overall credibility of site sponsors was present in the analysis.

On the issue of whether source would influence the perceived accuracy or helpfulness of the information, no statistically significant differences emerged between the familiar and unfamiliar web sources in this experiment. The data showed, however, consistently higher mean scores in favor of the familiar sources. With a larger sample size, some of these differences may have been found to be statistically significant.

Despite the lack of strong support for many of the central hypotheses, there is much to be learned from this study. The next chapter will offer a detailed discussion on what was learned, what can be improved upon, and suggest methods for future research involving credibility research and the World Wide Web.

Chapter 6

Discussion

This study has explored two primary aspects of credibility research within an experimental framework: 1) enhancing the credibility of a local television news source; and 2) testing aspects of source credibility theory in a new medium. This study also investigated the contribution of web use to knowledge gain pertaining to local politics and attempted to find out how this relatively new medium is viewed as an information source, compared to traditional media.

This chapter will contain a detailed discussion of the results in order of the hypotheses and research questions. This discussion will be followed by recommendations for future study.

Discussion of Hypotheses

In light of the data in this study, the experimental web site containing issue information on local political candidates did not lead to increases in overall perceptions of credibility, perceived community involvement, or utility of information for two medium

market television news organizations regardless of which station sponsored the web site.

There are several reasons that this relationship may not have materialized as expected in this study. The first reason appears to be testing effects. The means for the overall credibility index indicated a downturn in perceived credibility from pretest to posttest. This was also true for the utility of information index. These drops were consistent and statistically significant, regardless of whether the subjects were part of the exposure group for a particular station. In other words, responses by subjects tended to rate credibility of all local media institutions lower on the posttest. Upon further investigation, this apparent effect was most pronounced for females who tended to rate sources higher in credibility than males, but showed more of a downturn in their scores on the posttest.

Once the testing effect had been identified, an attempt was made to adjust for it. Following this adjustment in the scores, the data still did not indicate that exposure to the web page stimulus led to any increases in overall credibility. However, this adjustment did counteract a finding in the unadjusted data showing a statistically significant decrease in overall credibility and utility of information for the higher

credibility news source. Following the adjustment, no statistically significant decrease was found.

While the presence of apparent testing effects helps explain the decrease in credibility, more discussion is necessary as to why the results did not reveal a positive effect as predicted in hypotheses one through three. Some possibilities for the lack of positive findings may stem from limitations in the design of this study. A number of these limitations will be discussed in order to provide insight for future studies.

The stimulus in this experiment was found to contribute to increased levels of voting confidence and knowledge gain. Also, there are indications that the logos placed on each page seemed to provide sufficient identification of the sponsoring news organizations. Despite these findings, there are still some limitations to the stimulus that may help explain the lack of variance in hypotheses one through three. The primary limitations of the stimulus appear to be: 1) lack of truly local political information; 2) limited exposure time; and 3) lack of interactivity or ability to link with other sites.

Limitation number one is based on the possibility that subjects may not have perceived the information as being necessarily a community service by the sponsoring news source. Congressional races are both local and

somewhat state-wide political events. The stimulus may have exerted more variance on the community involvement concept had the information pertained to county or municipal races. Of course, compiling data on all local offices and candidates may not have been feasible for an experiment, but it may have had a more direct effect on a subject's perception of community involvement by the source.

Limitation number two is that exposure to the stimulus was limited to just twenty minutes. For this particular web site, this time frame was adequate for viewing all of the material, but for a real site connected with other sites, a longer exposure time was likely be necessary. It is possible that a brief one-shot exposure is not enough time for people to develop an appreciation for a web site or the sponsor of the site. The opportunity to revisit a site several times and discover new information may lead to greater appreciation for the site and thus more positive attitudes towards the sponsor. It is also possible that the web site stimulus and the information it contained was not strong enough to trigger changes in credibility effects.

Although a conscious effort was made to make the experimental page look professional and operate smoothly, it did possess some limitations. It did not have any

links to other web sites and was not designed for a high degree of interactivity. On some political web sites, the user can ask questions about candidates, the campaign, or make suggestions.¹⁴ The lack of links and basic interactivity may have caused some subjects to detect that the web site they were looking at was not an actual site. Lack of links and interactivity may also have affected the perceived usefulness of the page as well. While most subjects seemed to pursue information as if the web site was a real source, no items were included in the questionnaire to determine how the subjects perceived the authenticity of the experimental site. If a subject felt the site was indeed just an experimental site, the subject might have been less likely to make a real connection between the local media sponsor of the page and the credibility assigned to the actual media sponsor on the questionnaire. In addition to possible limitations regarding the stimulus, the questionnaire and sample size may have also limited the findings somewhat.

Most of the items used in the credibility indexes of this study were drawn from previous studies of credibility (Schihl, 1982; Gaziano and McGrath, 1986; and Ryu, 1995;). They were incorporated into this study because they had been shown to create a reliable measure of credibility.

¹⁴ voter96.cqalert.com (accessed July, 1996)

While these items were found to form a reliable index for measuring general aspects of credibility, they were not designed to measure specific aspects of credibility. For instance, instead of asking questions about whether a local media institution offers useful information, a more specific question would have asked whether the institution offers useful coverage of local political races. Or, rather than asking whether a station is involved in the community, a more precise question might have asked if the station makes an effort to inform the community about local political races. As discussed in the literature review, credibility is a complex attitude. Researchers attempting to understand factors that enhance or diminish credibility will need to study specific elements of source and content and match them closely with highly correlated questions. While changes in overall credibility may be difficult to measure with similar studies, more precision in the type of questions might lead to greater variance on the components of community involvement and utility of information.

A total of 121 subjects completed all three phases of the study. With a three group design, this left roughly 40 subjects for each experimental group. While small samples are considered acceptable for experimental analysis (Kerlinger, 1986), a larger sample may be more

fruitful in future experimental studies on this topic. In addition to a small sample size, subjects in this sample were younger and more educated than the actual U.S. population. The limitations regarding the sample were due in part to the timing of the data collection. The experiment was conducted during a summer semester when fewer subjects from a university sampling frame were available.

Despite the limitations to certain aspects of the study, some notable findings were present in the data. Perhaps the most interesting finding related to the first three hypotheses was the factor loadings of the various items used to measure credibility. The analysis showed that all items but one loaded onto one credibility factor for the higher credibility source while two factors were present for the lower credibility source. Replication of this in other studies would suggest caution in assuming a credibility index constructed from one source would be valid for another source. However, upon removing the one item that did not load for both sources, the remaining 16 items for the lower credibility source formed one single measure with a fairly strong factor loading.

Three of the four items introduced in this study to measure utility of information showed promise of being reliable measures of this concept. The correlation of

these items with other items known to measure credibility supports previous findings by McCroskey and Jenson (1975) and Schihl (1982). Such replication shows news value or utility of information are concepts that appear to have a reliable connection with credibility. While this is encouraging, there appears to be a need for more specificity in defining how utility of information relates to particular subject matter.

In discussing the results of hypotheses four through six, the findings suggest there is much more to learn about credibility, especially as it relates to the World Wide Web.

The initial analysis showed no variation in perceived accuracy or helpfulness of the information between the groups exposed to the media sponsored sites and the site sponsored by a fictional interest group. No variation was present in whether the subjects felt they would revisit the site either. In contrast to the widely accepted findings by Hovland & Weiss (1951), information from the web page sponsored by the higher credibility news source did not differ from the lower credibility source on these three concepts. In fact, the means for information from the lower credibility station showed slightly higher levels on these concepts though this difference was not significant. This finding may have been due to a lack of

dramatic difference in perceived credibility between the two local sources. Though differences for overall credibility scores were statistically significant between the two stations, this simply means that the lower credibility source was rated lower than a highly credible news institution, not necessarily low in credibility when compared to other sources of information.

Another possible explanation for this apparent reversal effect is that some subjects did not make the connection between the logo on the web page and the respective station. A test for page identification, however, seemed to show that most subjects were able to recall the name of the source for the web pages sponsored by the television stations. Of the twenty subjects tested for recall of the lower credibility source, all but three subjects were able to correctly give the call letters of the television station. Of the fourteen subjects tested for recall of the higher credibility source, all but one was able to give the call letters. However, only one subject out of the nine tested for recall of the name for the fictional interest group was able to give the correct name.

Given the preceding findings, it is interesting to note that the analysis failed to yield any statistically significant variation on perceived accuracy, helpfulness,

and likelihood of revisiting between the two television stations and the fictional interest group. To an extent, such findings would appear to contradict what is known about credibility research in that source does seem to make a difference in how information is perceived (Hovland & Weiss, 1951; Westley & Severin, 1964; Berlo, Lemert, & Mertz, 1969).

As a means of investigating this apparent contradiction, three separate one-tailed t-test were conducted for hypotheses four through six. The findings of the t-tests offered some support for differences between subjects in one television exposure group and subjects in the fictional interest group on perceived accuracy of information and likelihood of revisiting the web site. Nevertheless, these t-tests were not part of the original hypothesis, which suggested the use of a one-way ANOVA. The initial test showed no statistically significant difference in variations between groups.

This apparent discrepancy between established theory and the mixed findings related to hypotheses four through six requires a bit of discussion as to why this may have occurred. One possible reason may be due to the limited sample size of this study. Even though the differences were not statistically significant in favor of the television news sources, the mean scores indicated a

consistent differences on accuracy, helpfulness, and likelihood of revisiting the web page. This would seem to indicate that with a larger sample size, these apparent differences might have reached statistical significance.

Another reason these comparisons differ somewhat from some of the earlier studies on source credibility may be due to subtle differences between the types of sources involved. For instance, in the classic Hovland and Weiss study (1951), comparisons were made between sources known to be high in credibility and sources known to be very low in credibility. Hence, the variance in how the information was perceived by the subjects was maximized. In this study, the fictional interest group was purposefully created to represent an unknown quantity in terms of credibility or bias. This group had no history such as the low credibility sources used in Hovland's research and consequently may not have been cause for as much caution had the source been identified as a known radical political group.

This is an important point, because on the WWW, one may encounter many unfamiliar or untested sources. The real issue in researching source credibility on the Web may not be how people rate information between the really good sources and the really bad, but how it is judged between the familiar and unfamiliar sources. Much is

known about the effects of high credibility versus low credibility sources on believability of information. More study should be devoted to learning about situations encountered in a web environment. The familiarity issue is a good place to start, but emphasis should also be placed on the nature of the web as a medium. For instance, is it possible that it is easier for unknown sources to appear more credible on this medium than others.

Strong support for two of the participation variables was present in this study. Higher levels of voting confidence and greater recall of candidate names resulted from exposure to the web page. An increase in intent to vote in the primary also approached significance at the .05 level. Exposure to the experimental web page, however, did not lead to any changes in how subjects perceived the political process.

The results on voting confidence and recall are certainly encouraging. It could be argued of course that similar results could have been obtained by exposing subjects to similar information with other media. However, significant increases were even detectable for subjects indicating high use of television news and/or newspaper to obtain political information. Based on these findings, the web page appears to have transmitted issue

information quickly with significant results. As use of the web as a source for political information grows, survey research methods will be fruitful for making generalizable comparisons on the effects of web use on participation variables versus traditional media. Such research should also focus on how people use the web for political information, what types of information are accessed most often, and demographic profiles on users.

Previous research on media use and voting knowledge has not always agreed on the contribution of television news. A regression analysis by Choi and Becker (1987) found that television news viewing did little to contribute to issue knowledge, while Weaver and Drew, (1993) found both television and newspaper use do contribute. The results in this study suggest both media contribute. By using a 2 x 2 factorial ANOVA it was possible to not only look at media use but its interaction with media preference. High television news viewership was associated with greater confidence in making an informed decision for both preference groups. Voting confidence, however, did not vary with high readership of the local newspaper for either preference group. In terms of recall, results showed that high newspaper readership aided recall of candidate names only for those preferring newspaper. Television use was related to recall of

candidate names but only for subjects preferring newspaper as their primary source for political information.

From these findings, two basic inferences can be made: 1) there seems to be a difference between how television and newspaper use affect voting confidence and recall; and 2) subjects preferring newspaper seem to benefit most from high media use. At the same time, these findings must be viewed in the light of an extremely small sample indicating a preference for newspaper ($N = 16$).

The difference between voting confidence and recall is consistent with findings by Graber (1989). Her findings showed that most respondents tended to base voting decisions on personality traits rather than specific information. Based on Graber's findings, it may be possible for people to feel confident in making a decision based on seeing the candidate on TV without recalling exactly what the candidate said or even recalling the candidate's name. In this study, however, a twenty minute exposure to candidate issue profiles and biographical information led to statistically significant increases in both voting confidence and recall.

People who prefer newspaper over television as a source political information appear to benefit most from high television use in terms of their voting confidence. These subjects indicated that high use of both TV and

newspaper aided recall of candidate names. What these findings suggest is that some people who prefer newspapers over television are high information seekers and may benefit from information gathered from a variety of sources. Those preferring television may be more passive information seekers and do not seem to benefit from greater exposure to news media.

The results on media preference, media use, voting confidence, and recall must be interpreted in light of small and highly disparate group sizes. Of the 75 cases selected from the sample by locality, 60 subjects were in the TV news preference group while only 15 identified themselves as having a preference for newspapers. Such differences in group size is considered a violation of certain properties of a factorial ANOVA (Kerlinger, 1986). Nevertheless, the strategy of using a factorial ANOVA to analyze this issue may be helpful in future studies.

The findings in research question one offered fairly strong support for previous research indicating a relationship between news media credibility and news media use (Westley & Severin, 1964; Greenberg, 1966; and Schihl, 1982). Frequency of viewing local television news showed a statistically significant correlation with higher levels of overall credibility. No relationship was found between local newspaper readership and levels of credibility for

the local newspaper. This finding contradicts previous research regarding frequency of use and newspaper credibility (Cobbey, 1980; and Gaziano & McGrath, 1986).

Previous use of the World Wide Web was found not to correlate with perceived helpfulness of information on the experimental web site, its accuracy of information, or likelihood of revisiting it. Again, this finding does not follow previous research on media credibility and media use (Greenberg & Roloff, 1974). There are many possible reasons why a relationship did not materialize. One possibility is that the questionnaire only asked for the perceived accuracy, helpfulness, and likelihood of repeat usage in reference to the experimental web site. An additional set of questions about political web sites and web information in general may have offered more meaningful data on perceptions of overall accuracy, helpfulness, and repeated usage.

Finally, most subjects rated the Web very highly as a source of political information. Following the exposure to the experimental web site, subjects felt the information was less biased and more in-depth than television newscasts. A majority of subjects also said that if only given one choice for getting information on local congressional races, they would chose a web site.

While some conditioning due to the experiment may have led to results favoring web use, the responses are so strongly in favor of using the web for political information that they are worth taking note of.

In answering several open ended questions about the web site, many subjects felt they were able to learn a lot in a short period of time because they could quickly find particular candidates and issues of interest. This apparent efficiency may be one reason subjects had such favorable responses to the Web in comparison to other media.

Even though the responses to open ended questions were generally favorable, many subjects indicated a desire for more information than was provided. A large portion said they would have liked information on the presidential races and/or local state representative and municipal races. Others wanted to be able to ask questions of the candidates or even find out about helping with campaigns.

Implications for Future Research

In this study, the apparent positive attitudes about using the Web for political information did not translate into statistically significant increases in the perceived credibility, community involvement, or utility of information for the television stations sponsoring the

information on the experimental web site. Improvements in methodology and questionnaire design in future studies, however, may reveal different results. In considering future research, there are a number of questions based on the findings of this study that will require more investigation. Can extended information on the Web from a routine news source be beneficial in building trust and credibility with news consumers? How can routine news sources best utilize the World Wide Web? Is the credibility of familiar information sources on the World Wide Web greater than unfamiliar sources? Will population groups traditionally not interested in political news become more interested when they can access information on demand? If people do in fact prefer using the Web as a source of political information, what are the attributes of this new technology that are attractive to users? And finally, does exposure to issue information lead to increased likelihood of voting?

Suggestions for Future Research

Research on overall credibility and utility of information could be carried out at the local or national level. Studies focusing on the effect of extended political issue information on perceived community involvement would of course be devoted to local media.

Experimental studies on local media and the Web may require that information in the stimulus be highly specific to the community from which the subjects are drawn. Questionnaire items asking for specific aspects of the subjects own personal involvement with a particular community may also be useful as control variables.

Considering the results of this study and the current web environment, research on the effect of extended information on the Web may be somewhat better suited for national media institutions. The main reason being, web sites created by national media institutions are already available to the public. Researching national sources would not require the creation of a web page stimulus, but simply the study of actual sites and their relationship with the respective media sources. Many of the major television networks now have web sites and CBS, NBC, ABC, and CNN supplied some political information on their sites in the 1996 election (Stipe, 1996).

As the number of web users continues to grow, survey research methods will also be effective in determining the effect of extended political information on the perceived credibility and utility of information of national news sources. Whether data is collected through experimental or survey methods, researchers interested in measuring an increase in utility of information should be careful to

specify questionnaire items to match the particular media content being studied, in this case, political information. Items requesting general information about utility of information and credibility can also be included as a means of comparison, but specificity seems to be essential in detecting any variance on perceived utility of information.

Both experimental and survey research methods may be beneficial in understanding what types of extended information people prefer most on media web pages, and for determining what types of information they would like to access that is not currently provided. Because the Web is still a relatively young medium, a uses and gratifications approach may be helpful in determining the most efficient way for media institutions to use this new medium.

This study also raised issues of whether candidate issue information from familiar sources on the Web is perceived as being more credible than information from an unfamiliar source. One possible follow up study might include sponsor identification of a routine news source pretested as possessing high credibility, a tabloid news source considered to be low in credibility, one interest group source pretested as being unfamiliar and another interest group source with a familiar name associated with a certain political position. Research on perceived Web

credibility is an important issue because the Web operates as a more decentralized medium than traditional media. There are many more voices, and these voices are perhaps more accessible on the Web than would be possible through more traditional media. How the public perceives these voices in relation to traditional media sources is an important topic for future study.

Continued research would also be helpful in following up findings that suggested a fairly strong preference for using political web sites as a primary source of political information over traditional media. These findings may have been biased, however, due to the experimental nature of the study. Survey research methods with similar questions may provide more accurate responses. In addition to measuring preference, future research should be devoted to determining if population groups previously not active or interested in political news are more likely to acquire such information when made available on demand or at the click of a mouse.

This study also demonstrated that even a brief exposure to candidate issue information led to markedly higher levels of voting confidence and candidate recall. An increase in likelihood of voting in the primary election also approached statistical significance. Likelihood of voting needs more research, however, to help

confirm whether exposure to issue information leads to a greater likelihood of voting.

Experimental research on how information effects intent to vote seems to be an appropriate way to measure this variable. Previous survey studies (Weaver & Drew, 1993; and Kennamer, 1987) have shown a relationship between media use and likelihood of participating, but it is very difficult to determine whether the media information motivates political participation or if high information seekers are just highly motivated individuals who would vote regardless of availability of information.

Future experimental research could compare likelihood of voting between groups exposed to detailed web information about candidates and another group exposed to negative attack ads. With this design, the subjects could also be tested for how they perceive candidates based on the level and type of information they are exposed to. Perception could be studied by whether subjects view the candidate as a person or as a politician, as hard working or not hard working, qualified or unqualified, etc..

Summary

The preceding recommendations represent extensions of the main findings in this study. Further research in this area will help to refine conceptualization and measurement

issues associated media credibility and a variety of issues related political communication, especially on the World Wide Web.

In this study, no support was found for the hypotheses that extended information the web page of television news organization leads to higher levels of perceived credibility, community involvement, or utility of information. While no strong evidence was presented to support the hypotheses advocated by the model for institutional media credibility, the recommendations mentioned earlier may help clarify its utility as a tool for describing the formulation of institutional media credibility.

Analysis of the data pertaining to hypotheses four through six showed some evidence that candidate information from familiar sources on the experimental web sites was perceived as more accurate and helpful than when provided by an unfamiliar source. Findings related to hypotheses seven through ten indicated that even a brief exposure to issue-based information led to statistically significant increases in voting confidence, voting in the primary election, and candidate name recall. Other notable findings showed that the web was ranked as the medium of choice (above TV news and local newspapers) for information on local congressional candidates.

As with any experimental study, the preceding results are not highly generalizable to broader populations. However, it is hoped some of the issues raised in this study about web use and its relation to traditional media sources may be helpful in designing more comprehensive experiments or survey research projects to study this topic.

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Appendices

Appendix A
The First Phase Questionnaire

Please provide the last four digits of your Soc. Sec. # _____
and last two digits of your phone # _____

Survey Form

Please read each of the following questions carefully, and please select one answer that best reflects your response. The questionnaire should take about ten minutes to complete. Thank you very much for your participation!

-
1. Do you identify yourself with any political party?
Yes ____ No ____
 2. If yes, would you consider the strength of your identification to be...
very strong ____ moderately strong ____ somewhat strong ____
not strong at all ____
 3. What news media do you use most often to get information about political races involving Tennessee candidates?
Newspaper ____ Television ____ Radio ____
Other (please list) _____
 4. Some people watch local television news programs. How often would you say you watch a local six o'clock newscast?
not at all ____ 1 to 2 times/week ____ 3 to 4 times/week ____
more than 4 times/week ____
 5. If you do watch local television news, what station do you tend to watch the most?

WATE-TV Channel 6 ____
(with Lori Tucker and Clay Thomas)

WBIR-TV Channel 10 ____
(with Kim Stephens and Bill Williams)

WKXT-TV Channel 8 ____
(with Sam Brown)

6. Some people read the local newspaper (The Knoxville News Sentinel). How often would you say you read the Sentinel?

not at all _____ 1 to 2 times/week _____ 3 to 4 times/week _____

more than 4 times/week _____

The following items require you to circle one number that best describes your opinion regarding local news coverage by local media organizations. For example, if you feel one organization is very fair, you would circle 1. If you think they are very unfair, you would circle 5. You may choose any number in between that best describes your opinion. Please circle one number for each media organization.

Fair / Unfair

	Very fair			Very unfair	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Offers sufficient information / Does not offer sufficient information

	Very sufficient			Not at all sufficient	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Accurate / Inaccurate

	Very accurate			Not at all accurate	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Watches out for your interest / Does not watch out for your interest

	Watches out			Does not watch out	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Competent to bring you a quality news product/ Incompetent to bring you a quality news product

	Very Competent			Not at all competent	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Concerned about the community's well-being / Not concerned about the community's well- being

	Very concerned			Not at all concerned	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Provides useful information / Does not provide useful information

	Very useful			Not at all useful	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Trustworthy / Not trustworthy

	Very trustworthy			Not at all trustworthy	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Is committed to quality news coverage / Is not committed to quality news coverage

	Very committed			Not at all committed	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Covers important stories / Does not cover important stories

	Very important			Not at all important	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Well informed staff / ill-informed staff

	Very informed			Not at all informed	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Concerned mainly about the public interest / Concerned mainly about making profits

	Public interest			Profit interest	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Can be relied upon to get the story right / Cannot be relied upon to get the story right

	Very reliable			Not at all reliable	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Impacts my daily decisions / Does not impact my daily decisions

	Does impact			Does not impact	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Professional staff / Unprofessional staff

	Very professional			Not at all professional	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Involved with the community / Not involved with the community

	Very involved			Not at all involved	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Overall impression of news organization (favorable) / Overall impression (unfavorable)

	Very favorable			Very unfavorable	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Appendix B
Second Phase Questionnaire

Last four digits of your Social Security # and last two digits of your phone #

This is the first portion of a two part questionnaire. This part will take about two minutes to complete. After completing this portion, please stop and wait for further instructions.

The following items pertain to political participation. Please check one space that best reflects your response.

I feel confident in my ability to make an informed decision in the upcoming Tennessee Primary.

Strongly agree _____ Strongly disagree

How likely is it that you will vote in the upcoming Tennessee primary?

Very likely _____ Very unlikely

American democracy works.

Strongly agree _____ Strongly disagree

How likely is it that you will vote in the November election?

Very likely _____ Very unlikely

Most politicians don't care what average people think.

Strongly agree _____ Strongly disagree

Your individual vote matters.

Strongly agree _____ Strongly disagree

Please continue...

The following questions ask you to provide an answer in the space provided.
Even if you can not fill all of the blanks, please try to fill as many as you can with what
you believe to be the correct answer(s).

- * Name *four* candidates running for U. S. Congressional seats in Tennessee and the
political party they are affiliated with.

- * Name *two* candidates running for U. S. Senate in Tennessee and the
political party they are affiliated with. .

STOP!
Wait for further
instructions

Appendix C
Third Phase Questionnaire

Last four digits of you Social Security # _____ and last two digits
of your ph. # _____

Please read each of the following questions carefully and answer them to the best of your ability. The questionnaire should take no more than ten minutes to complete. Thank you very much for your participation.

1. Before today, had you ever accessed a home page on the World Wide Web?
Yes _____ No _____
 2. If yes, how much time per week would you say you spend on the world wide web?
_____ less than one hour _____ between one and three hours _____ three or more
 3. Before today, had you ever accessed a site on the web containing information on political candidates?
_____ Yes _____ No
-

The following items ask you to select one space that best reflects your response to each statement.

The information you accessed a moment ago regarding political candidates was helpful.

Strongly agree _____ Strongly disagree

You are confident that this information was accurate.

Strongly agree _____ Strongly disagree

You would use this site again for political information.

Strongly agree _____ Strongly disagree

If more information was added to this site, how likely would you be to visit it again for political information?

Very likely _____ Not very likely

You would recommend this site to your friends.

Strongly agree _____ Strongly disagree

What is the likelihood that you will visit any site on the web containing political information between now and November?

Very likely _____ Very unlikely

On this seven point scale, how would you classify yourself politically?

Very conservative _____ Very Liberal

Which party would you consider yourself most closely aligned with?

Democratic _____ Republican _____ Independent _____ Other _____

The following items require you to circle one number that best describes your opinion regarding local news coverage by local media organizations. For example, if you feel one organization is very fair, you would circle 1. If you think they are very unfair, you would circle 5. You may choose any number in between that best reflects your opinion. Please circle one number for each media organization. Even if you are not very familiar with a particular organization, offer an answer that best represents your initial impression.

Fair / Unfair

	Very fair			Very unfair	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Offers sufficient information / Does not offer sufficient information

	Very sufficient			Not at all sufficient	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Accurate / Inaccurate

	Very accurate			Not at all accurate	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Watches out for your interest / Does not watch out for your interest

	Watches out			Does not watch out	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Competent to bring you a quality news product/ not competent to bring you a quality news product

	Very Competent			Not at all competent	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Concerned about the community's well-being / Not concerned about the community's well- being

	Very concerned			Not at all concerned	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Provides useful information / Does not provide useful information

	Very useful			Not at all useful	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Trustworthy / Not trustworthy

	Very trustworthy			Not at all trustworthy	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Is committed to quality news coverage / Is not committed to quality news coverage

	Very committed			Not at all committed	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Covers important stories / Does not cover important stories

	Very important			Not at all important	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Well informed staff / ill-informed staff

	Very informed			Not at all informed	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Concerned mainly about the public interest / Concerned mainly about making profits

	Public interest			Profit interest	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Can be relied upon to get the story right / Cannot be relied upon to get the story right

	Very reliable			Not at all reliable	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Impacts my daily decisions / Does not impact my daily decisions

	Does impact			Does not impact	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Professional staff / Unprofessional staff

	Very professional			Not at all professional	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Involved with the community / Not involved with the community

	Very involved			Not at all involved	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

Overall impression of news organization (favorable) / Overall impression (unfavorable)

	Very favorable			Very unfavorable	
WATE-TV Channel 6	1	2	3	4	5
WKXT-TV Channel 8	1	2	3	4	5
WBIR-TV Channel 10	1	2	3	4	5
Knoxville News Sentinel	1	2	3	4	5

If you watch local television news, which station do you tend to watch the most?

WATE-TV Channel 6 _____
(with Lori Tucker and Clay Thomas)

WBIR-TV Channel 10 _____
(with Kim Stephens and Bill Williams)

WKXT-TV Channel 8 _____
(with Sam Brown)

How often would you say you watch the newscasts of WATE-TV?

Very often _____ Not at all

How often would you say you watch the newscasts of WBIR-TV?

Very often _____ Not at all

How often would you say you watch the newscasts of WKXT-TV?

Very often _____ Not at all

The following items pertain to political participation. Please check one space that best reflects your response.

I feel confident in my ability to make an informed decision regarding congressional and senatorial races in the upcoming Tennessee Primary .

Strongly agree _____ Strongly disagree

How likely is it that you will vote in the upcoming Tennessee primary?

Very likely _____ Very unlikely

American democracy works.

Strongly agree _____ Strongly disagree

How likely is it that you will vote in the November election?

Very likely _____ Very unlikely

Most politicians don't care what average people think.

Strongly agree _____ Strongly disagree

Your individual vote matters.

Strongly agree _____ Strongly disagree

Please continue...

**The following questions ask you to provide an answer in the space provided.
Even if you can not fill all of the blanks, please try to fill as many as you can with what
you believe to be the correct answer(s).**

*** Name *four* candidates running for U. S. Congressional seats in Tennessee and the
political party they are affiliated with.**

*** Name two candidates running for U. S. Senate in Tennessee and the
political party they are affiliated with. .**

Select one that best reflects your response to the following statements.

The information displayed on the web page you just viewed is:

_____ Less biased than political information from television reporters.

_____ More biased than political information from television reporters.

_____ About the same in terms of bias.

The candidate and issue information displayed on the web page you just viewed is:

_____ More in-depth than most candidate and issue information provided on television newscasts.

_____ Less in-depth than most candidate and issue information provided on television newscasts.

_____ About the same in terms of candidate and issue information.

If given only one choice for obtaining information about candidates running for Congress and the U.S. Senate, which one of the following would you most prefer?

_____ Television newscasts

_____ Political Web Sites

_____ Newspapers

This group of items asks you to offer some basic demographic information.

Male _____ **Female** _____

Age: 17-20 _____ 21-25 _____ 26-35 _____ Over 35 _____

Ethnicity: African-American _____ Asian _____ Hispanic _____ Indian _____

Caucasian _____ Other _____

Class standing: Freshman _____ Sophomore _____ Junior _____ Senior _____ Grad _____

Major course of study at UT _____

Registered to vote: Yes ____ No ____

State and County you are registered in _____

If you are not currently registered to vote, what state and county would you be most likely to vote in?

The page you looked at a moment ago contained information on congressional candidates and senatorial candidates. What additional information would you like to have been able to access concerning these candidates?

In general, what other types of issue and candidate information do you think would help make a web site like this better? (For instance, would you like to see info on the presidential races, local races etc.)

Once again, thank you very much for your participation in this study.

Appendix D
An Overview of
Selected Credibility Studies
and Related Factors

An Overview of Selected Credibility Studies and Related Factors

Institutional Source Studies		Combined Studies		Individual Source Studies	
Factor (s)	Author (s)	Factor (s)	Author (s)	Factor (s)	Author (s)
Trustworthiness & Expertise	Hovland & Weiss (1951)	Reliability & Dynamism	Markham (1968)	Competence Dynamism & Trustworthiness	Berlo (1961)
Accuracy & Truthfulness	Westley & Severin (1964)	Safety Qualification & Dynamism	Berlo, Lemert & Mertz (1969)	Authoritativeness & Character	McCroskey (1966)
Reliable Believable & Valuable	Schihl (1982)	Competence Character & Sociability	McCroskey & Jenson (1975)	Trustworthiness Competence & Dynamism	Whitehead (1968)
Fairness & Community Involvement	Gaziano & McGrath (1986)			Competence & Expertness	Stone & Hoyt (1974)

Appendix E
Sample Pages From
Experimental Web Site



Abortion

Balanced Budget

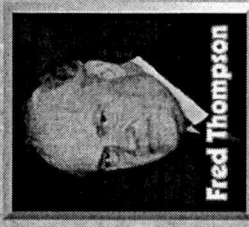
Capital Punishment

Crime

Education

Environment





Fred Thompson

Fred Thompson

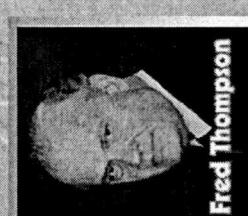
Personal Information

- * Hometown; Lawrenceburg, TN
- * Current place of residence; Nashville, TN
- * Children; Tony, Betsy, and Daniel
- * Education; B.S. Memphis State Univ. (1964)
- * Law Degree; Vanderbilt Univ. (1967)

Sample Web Page for Station Number One

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Fred Thompson

Personal Information

- * Hometown; Lawrenceburg, TN
- * Current place of residence; Nashville, TN
- * Children; Tony, Betsy, and Daniel
- * Education; B.S. Memphis State Univ. (1964)
- * Law Degree; Vanderbilt Univ. (1967)

Abortion

Balanced Budget

Capital Punishment

Crime

Education

Environment

Sample Web Page for Station Number Two

Decision
96

Abortion

Balanced Budget

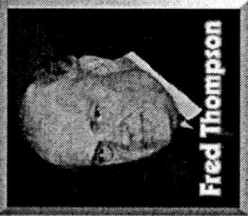
Capital Punishment

Crime

Education

Environment

Concerned Voters
of
Tennessee



Fred Thompson

Personal Information

- * Hometown; Lawrenceburg, TN
- * Current place of residence; Nashville, TN
- * Children; Tony, Betsy, and Daniel
- * Education; B.S. Memphis State Univ. (1964)
- * Law Degree; Vanderbilt Univ. (1967)

Sample Web Page for Fictional Interest Group

Vita

Dwight Brady is a native of Michigan's Upper Peninsula. Dwight graduated from Manistique High School in 1978. He then went on to attend Grand Valley State Colleges in Allendale, Michigan where he graduated in 1982 with a B.S. degree in Arts and Media. After six years of working in radio and television broadcasting, Dwight entered the Master's program in Telecommunications Management at Michigan State University. He completed this degree in August of 1990. Upon graduating from MSU, Dwight began teaching in the Radio-Television-Film Department at Sam Houston State University in Huntsville, Texas. After three years of teaching at SHSU, Dwight entered the University of Tennessee to pursue the Doctorate of Communications. The doctoral degree was received December, 1997.

Dwight is presently an Assistant Professor in the Communication and Performance Studies department at Northern Michigan University in Marquette.